CASE IN SINHALESE

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ABSTRACT

This thesis is concerned with the syntactic relations between the noun-phrases and the main verb in Sinhalese sentences. The term 'Case' identifies these syntactic relations. The grammatical model which is utilized in this study is the case grammar proposed by Charles J. Fillmore, mainly in 'The Case for Case'.

The Introduction outlines some general characteristics of the Sinhalese Language and specifies the particular stratum of language from which the data for the present study are abstracted.

Chapter 2 presents a brief survey of the earlier approaches to the study of 'case'. At the end, it is proposed that a distinction between 'Case' and 'case-form' be maintained.

Chapter 3 describes the basic assumptions of Fillmore's case grammar.

Chapter 4 starts with a discussion of the classification of verbs according to the number of arguments with which they occur and it describes the grammar of one-place verbs. Chapter 5 provides a grammatical description of two-place verbs and three-place verbs.

Chapter 6 describes grammatical facts associated with a number of topics, namely: the Instrumental Case, the

Locative, Source and Goal Cases. Extra-nuclear Locative and Time Cases are also described.

Chapter 7 provides a grammatical description of causative sentences. These sentences are related to non-causative sentences by Causativization. Chapter 8 describes the grammar of non-volitional verbs.

Chapter 9 analyses existential, locative and possessive constructions, and they are recognized as members of a single sentence type which can be identified as 'existential sentences'. The inalienable possessive constructions and the problems associated with the sentences containing nominal predicates are also described.

Chapter 10 closes this grammatical description.

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SIGNS AND SYMBOLS

A	= Agentive
a	= accusative case-form
adv.	= adverb
B	= Beneficiary
C	= Case or Comitative case
c	= co-ordinate conjunction
D	= Dative
d	= dative case-form
F	= Factitive
G	= Goal
g	= genitive case-form
I	= Instrumental
i	= instrumental case-form
K	= Case marker
L	= Locative
l	= locative case-form
M	= Modality
N	= Noun
n	= nominative case-form
O	= Objective
P	= Proposition
p	= particle

pp	= post-position
S	= Sentence
So	= Source
T	= Time
V	= Verb
$X \rightarrow Y$	X is rewritten as Y
$X \Rightarrow Y$	X is transformed into Y
X - Y	X and Y are concatenated (confined to the transformational rules).
X + Y	X and Y are concatenated. + is not converted into by word boundary transformation.
$X = Y$	X is equal to Y
$X \neq Y$	X is not equal to Y
(X)	X is an optional element
[X ——]	X is a case category in a case-frame
$[X]_{Y}^{Y}$	X is a constituent belongong to the category Y
$\begin{bmatrix} X \\ +Y \end{bmatrix}$	X contains the feature Y
[+Y]	Y is a positively specified feature
[-Y]	Y is a negatively specified feature
$\begin{Bmatrix} X \\ Y \end{Bmatrix}$	either X or Y is selected
{X}	X is a morpheme
/X/	X is a phoneme
$X \rightarrow Y / {}^{W-Z}$	X is rewritten as Y in the environment of a preceding W and a following Z.

∅	Zero in the transformational rules
*	unacceptable construction
#	word boundary
X, Y, W, Z	Cover symbols for all possible elements including zero.

CHAPTER 1

INTRODUCTION

1.1 Sinhalese

Sinhalese is the language spoken by the majority of people in Ceylon, roughly about 70°/o out of a population of twelve million; in the Northern and Eastern provinces most of the people speak Tamil which belongs to the Dravidian family of languages. The Sinhalese language has been assigned by scholars to the Indo-Iranian sub-family.[1] However being a language spoken by a community separated from the people of the Indian sub-continent at a very early period, Sinhalese evolved along its own lines into an independent linguistic system.

During the long course of history, the Sinhalese language has been subjected to the influence of South-Indian

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1. Geiger Wilhelm, A Grammar of Sinhalese Language, Colombo (1938) pp. VI-VII.
Wijeratna, P.B.F., 'Phonology of the Sinhalese Inscriptions up to the end of the Tenth Century A.D.' in Bulletin of the School of Oriental and African Studies, London, Vol. XI, p. 586.
Wijayaratna, D.J. History of the Sinhalese Noun, Ceylon University Press (1956) Preface p. v.

languages - especially Tamil[1] - and, from the beginning of the sixteenth century, to European languages - Portuguese,[2] Dutch and English. The influence exerted by these languages has been explained by many scholars in terms of lexical borrowings. Almost all these borrowed words have been assimilated.[3]

As a consequence of changing the medium of higher education - from English to Sinhalese - a large number of new Sinhalese words have been coined during the last decade, and this process is still in progress. In the formation of these 'neologisms' the base forms have been borrowed from Sanskrit or English when there were no suitable Sinhalese terms.

1.11 Language Varieties

Being a language spoken by the people of a large area (the area of the island is twenty five thousand square miles), Sinhalese has distinctive language varieties according

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1. Godakumbura, C.E. 'The Dravidian Element in Sinhalese' in Bulletin of the School of Oriental and African Studies, London, Vol. XI, pp. 837 ff.

2. Perera, S.G., 'Portuguese Influence on Sinhalese Speech' The Ceylon Antiquary and Literary Register, Vol. VIII, part 1, pp. 45-66, part 2, pp. 126-144.

3. This particular type of assimilation has been carried out by transferring the sound pattern of Sinhalese to 'borrowed words'. After this process the borrowed words behave in the same way as 'non-borrowed' Sinhalese words.

to users-dialects.[1] All these dialects of Sinhalese are mutually intelligible.[2] A native speaker from the Southern province is able to understand any native speaker from the Northern or the Central province. The main difference between these dialects is a lexical one. Therefore the gap between these dialects is not great. The modern education system and the mass media of press and radio are accelerating the standardization of language. Consequently, the provincial variations are being rapidly eliminated.

The main differences between these dialects are not gramonatical, but lexical. Any number of content words may come into a language and they may go out of use without considerable effects upon the syntactic structure of the language.

Every dialect seems to contain the same inventory of phonemes, but they differ in their distribution. There are varieties of the same word with significant phonological divergences. Consider the following examples:

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1. The term dialect is used in the sense of Halliday M.A.K., McIntosh Angus and Strevens Peter, Linguistic Sciences and Language Teaching, Longmans (1964) p. 77.

2. de Silva, M.W. Sugathapala 'Effects of Purism on the Evolution of the written Language: Case History of the Situation in Sinhalese', Linguistics 36 (Mouton) p. 6.

keruvə 'did'

kərae vvə "

kəravvə "

These examples belonging to three dialects represent the same lexical item. This list can be extended by further investigation. However these examples show that their phoneme sequences are different from each other. The main difference is in the distribution of vowels. These forms can be related to each other by postulating an abstract underlying structure and a number of phonological rules.

There are phonetic features peculiar to each dialect. The people from the Southern province usually speak in a high pitch. There is a significant difference in the rhythem between the speech of a person from the Southern province and that of a person from the Central province. The investigation of phonetic features of this kind in each dialect has not been carried out yet. The purpose of these few lines on the phonetic features of dialects is merely to point out the fact that there are significant phonetic differences between dialects.

The language can be looked at from another angle, namely, the variety according to use - Register[1] or

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1. Halliday, M.A.K., Angus McIntosh and Peter Strevens Linguistic Sciences and Language Teaching, Longmans (1964) p. 77.

Style.[1] The language employed in general conversation is different from the language of formal speech. A monk who gives a sermon uses a formal variety of language. The style of language therefore, is determined by circumstances.

1.12 Spoken Sinhalese and Literary Sinhalese

Apart from the linguistic diversity already mentioned, there is another significant type, namely Literary Sinhalese as opposed to spoken Sinhalese.[2] Literary Sinhalese exhibits more archaic features in its grammar and lexicon. In fact, it is a language stratum regulated by rigid grammatical rules which were imposed by traditional grammarians.[3] Most contemporary grammars intended for use in public schools have been written to teach this grammar.[4]

Native speakers do not use Literary Sinhalese in ordinary conversation. The Ceylon Broadcasting Corporation employs a form of Literary Sinhalese in its news broadcasting.

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1. Langacker, Ronald W., Language and Its Structure, Harcourt, Brace & World Inc. (1967) p. 51.

2. Gair, James W. 'Sinhalese Diglossia', Anthropological Linguistics, Vol. 10, No. 8, Nov. 1968, pp. 1-15.

3. The traditional grammar, that is regarded with great reverence is the Sidat Saṅgarawa, a compendium of grammar composed in the thirteenth century.

4. Sinhala Series published by the Education Publication Board, Colombo.

However, it is a written medium.

This form of language is held to be 'correct Sinhalese' and it has social prestige. A fairly large literature has been written in this style over a period of several hundreds of years. Most traditional scholars of Sinhalese look down upon the works written in a language close to spoken Sinhalese because the violation of traditional grammatical rules in these works is very common. Literary Sinhalese, therefore, is a superposed language variety. The Sinhalese grammarians such as Munidasa Kumaratunga, firmly believed that traditional grammatical rules should be rigorously used.[1]

The literary language is fairly stable; new lexical items (except neologisms) and grammatical rules are not easily introduced into it. Therefore 13-14 century literary Sinhalese and present day Literary Sinhalese do not exhibit significant differences with respect to the grammar. Every native Sinhalese speaker is able to understand the present day Literary Sinhalese; nevertheless, they are not able to

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1. Kumaratunga, M. Vyākarana Vivaranaya, Colombo, Introduction. The relevant parts which show his attitude towards the language and the grammar have been quoted by M.W. Sugathapala de Silva "Effects of Purism on the Evolution of the Written Language: Case History of the Situation in Sinhalese" in Linguistics 36, pp. 16-17, footnote 32.

reproduce it in the same way.[1] They have to acquire a special training if they want to do so.

Spoken Sinhalese differs from Literary Sinhalese in significant ways. For instance, the verb in spoken Sinhalese is marked only for tense; and it is not marked for person or number. The inflectional system of the verb in spoken Sinhalese is simple when compared with that of Literary Sinhalese. The concord relation between the 'surface subject' and the verb does not exist in spoken Sinhalese. Consider the following set of examples.

	LITERARY SINHALESE			SPOKEN SINHALESE	
NON-PAST					
SINGULAR					
First Person	mamə	yami	'I go'	mamə	yanəva
Second "	nubə	yahi	'You go'	uňbə	yanəva
Third "	ohu/hee	yayi	'He goes'	eya	yanəva
PLURAL					
First Person	api	yamu	'We go'	api	yanəva
Second "	nubəla	yahu	'You go'	uňbəla	yanəva
Third "	ovuhu	yati	'They go'	eegollə	yanəva

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1. de Silva, M.W. Sugathapala, op. cit., p. 6.

	LITERARY SINHALESE			SPOKEN SINHALESE	
PAST					
SINGULAR					
First Person	mamə	giyemi	'I went'	mamə	giya
Second "	nubə	giyehi	'You went'	uňbə	giya
Third "	ohu/hee	giyee(yə)	'He went'	eya	giya
PLURAL					
First Person	api	giyemu	'We went'	api	giya
Second "	nubəla	giyehu	'You went'	uňbəla	giya
Third "	ovuhu	giyəhə	'They went'	eegollə	giya

The above list shows that spoken Sinhalese has two verb forms, non-past and past in place of twelve forms in Literary Sinhalese. The verb-forms in Literary Sinhalese are marked for tense, number and person; and also they are marked for gender. The gender agreement is illustrated by the following examples:

(1.1) ohu/hee giyee yə
'He went'

(1.2) aeæ/ootomo giyaa yə
'She went'

The verb giyee 'went' in Sentence (1.1.) has been marked for the masculine feature while giyaa 'went' in Sentence (1.2) has been marked for the feminine. Other forms of verbs are not marked for gender.

Therefore, one of the basic criteria by which one can differentiate spoken Sinhalese from Literary Sinhalese is the surface-subject-verb agreement rule.

Because of these characteristics of the Sinhalese language, James W. Gair[1] pointed out that the term diglossia which was proposed by Charles A Ferguson[2] is appropriate to describe the language situation of Sinhalese.

1.2 Present Study

The present study is concerned with the deep structural sytactic relations of Sinhalese sentences and their realization in the surface structure. The Model of description that I employ in this thesis is Fillmore's 'Case grammar' proposed mainly in 'The Case for Case'.[3]

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1. Gair James W., op. cit.

2. "Diglossia is a relatively stable language situation in which in addition to the primary dialects of the language (which may include a standard or regional standards), there is a very divergent, highly codified (often grammatically more complex) superposed variety, the vehicle of a large and respected body of written literature, either of an earlier period or in another speech community, which is learned largely by formal education and is used for most written and formal purposes but is not used by any sector of the community for ordinary conversation". Ferguson, Charles A., 'Diglossia' in Word 15 (1959) p. 336.

3. Fillmore, Charles J. 'The Case for Case' in Bach Emmon and T Harms (eds.) Universals in Linguistic Theory, Holt, Rinehart, Winston Inc. (1968) pp. 1-88.

According to the principles of case grammar, I recognize syntactic cases (in the deep structure) and morphological cases (in the surface structure). These morphological cases are equivalent to case categories recognized by traditional grammarians.

The details of the case grammar proposed by Fillmore are presented in Chapter 3 of this thesis. Therefore, I devote the rest of this Chapter to specify the language stratum from which I abstract language material for the present study and the morphological cases of Sinhalese nouns. At the beginning I shall present a note on transcription.

1.3 Transcription

The present linguistic description is basically a syntactic study. Therefore, it is not necessary to present the sentences (which I advance to illustrate different syntactic relations) with minute phonetic details. A systematic device of transliteration may fulfil the present requirement. Therefore this thesis contains transliterated Sinhalese sentences. The values of symbols which I employ are as follows:

Consonants

		Bi-Labial	Labio-Dental	Dental	Alveolar	Palato-Alveolar	Palatal	Velar	Glottal
Plosive	Voiceless	p		t	T			K	
	Voiced	b		d	D			g	
	Pre-Nasalized	ǒb		ǒd	ǒD			ǒg	
Africate	Voiceless						c		
	Voiced						j		
Nasal		m			n		ɲ	N	
Roll					r				
Lateral					l				
Fricative	Voiceless		f		s	ɕ			h
Frictionless Continuant		v					y		

Table 1.1

VOWELS i, e, æ, a, o, u, ə,

LENGTH vowel quantity and consonant quantity is presented by gemination, e.g. ii, ee, kk, gg, etc.

1.4 Data for the Present Study

The data for the present study are obtained from Spoken Sinhalese. I do not intend to call it Colloquial Sinhalese for a number of reasons.

One of the striking features of colloquial Sinhalese is that the surface subject and surface object[1] appear in the same case-form; namely the nominative case-form. Most Sinhalese speakers irrespective of their education and social class have adopted this system. Consider the following constructions:

(1.3) sattu duvənəva[2]

Nn V

'Animals are running'.

(1.4) sattu mæ renəva

Nn V

'Animals die'.

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1. The notions of subject and object are limited to the surface structure of language. For their definitions see below pp.101 and 126-127

2. N and V stand for categories, Noun and Verb. n stands for the surface case-form. n = nominative. See below. p.99 F/note

(1.5) daDəyaNkaruvo sattu marənəva

Nn Nn V

'hunters' 'animals' 'kill'

'Hunters kill animals'.

At this point, the grammatical relations between the elements of sentences (1.3 - 1.5) are not described in detail; nevertheless some of their surface grammatical features will be mentioned. Sentences (1.3 - 1.4) contain one-place verbs. The nominal elements which occur with them function as the surface subject, and they appear in the nominative case-form. Sentence (1.5) contains a two-place verb, marənəva 'kill'.[1] One of the noun-phrases occur with it, daDəyaNkaruvo 'hunters' finctions as the surface subject while the other, sattu 'animals' functions as the surface object. Both noun-phrases appear in the nominative case-form.

A large number of examples can be quoted from newspapers and modern Sinhalese fiction to exemplify another system. That is the appearance of the surface subject and the surface object in the accusative case-form. Accordingly Sentences (1.3 - 1.5) might appear as:

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1. The description of the verb marənəva 'kill' see below Chapter 7 pp. 203-218

(1.6) satun duvənəva

Na V

'Animals are running'.

(1.7) satun mærenəva

Na V

'Animals die'.

(1.8) daDəyaNkaruvan satun marənəva

Na Na

'Hunters kill animals'.

From the traditional grammatical point of view, constructions (1.6 - 1.8)have violated some grammatical rules.

In a third system, the surface object is singled out and it appears in the accusative case-form. The surface subject is realized in the nominative case-form. This system is usually known as "the accusative system". Consider the following examples:

(1.9) sattu duvənəva

Nn V

'Animals are running'.

(1.10) sattu mærenəva

Nn V

'Animals die'.

(1.11) daDəyaNkaruvo satun marənəva

Nn Na V

'Hunters kill animals'.

The nominal element satun 'animals' in Sentence (1.11) functions as the surface object and it appears in the accusative case-form.

The facts which were discussed in the preceding pages are recapitulated in the following table.

	Surface Subject	Surface Object	Verb
System I	nominative	nominative	V
System II	accusative	accusative	V
System III	nominative	accusative	V

Table 1.2

The third system - the accusative system is described in the present thesis.[1]

The verb system of spoken Sinhalese is maintained throughout the present work. Therefore the variety of language from which the data are abstracted for the present thesis is neither absolutely colloquial nor absolutely literary. In other words the data for the present linguistic description

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1. A number of language students have analyzed this stratum of language. For instance:
Wickramasuriya B.S.S.A., The Nominal phrase in Sinhalese and its bearing on Sinhalese English (1965). Unpublished M.A. Thesis. University of London.

are obtained from Standard Sinhalese.[1] This is the language of a well-educated native Sinhalese speaker.

I treat language as an ideal system which is abstract in nature. It is a set of principles that a speaker masters. It is different from the execution of language - speech.

The purpose of the present thesis is to investigate a part of the set of principles that a speaker masters. I shall arrive at it by investigating the Standard Sinhalese sentences.

1.41 Formal Scatters of Nouns

Every noun-phrase that appears at the surface level of Sinhalese sentences accepts a case affix . Some of these case affixes may have a number of varieties. For instance, a noun with the syntactic-semantic features [+N, +count, +animate, +masculine] accepts either -o or -u as the nominative plural case suffix. The choice is totally determined by the syntactic-semantic features and the consonant and the vowel structure of the stem[2] of the noun.[3]

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1. 'Standard Sinhalese' is a variety of language based on the dialect of the Western Province where the capital city of the island - Colombo - is situated.

2. The terms 'root' and 'stem' are very common in morpho-phonological studies. I define stem as a sequence of phonemes to which case affixes are added. Consider the following

F/notes contd. on next page

Every member of the syntactic category, Noun has a formal scatter, and the number of terms in each scatter is determined by the syntactic-semantic features of the noun in question. In the traditional sense, a formal scatter is equivalent to a paradigm of a noun.

The relevant syntactic-semantic features in the determination of the case-suffixes which occur with nouns are represented by the following set of sub-categorization rules.

(i) [+N] → [± count]

(ii) [+ count] → [± animate]

(iii) [+ animate] → [± masculine]

(iv) [- count] → [± abstract]

Footnotes 2 and 3 contd. from previous page

formal scatter.

minihə	'man'
minihagen	'man-from'
minihaTə	'man-to'
minihage	'man's'
minissu	'men'
minisun	'men'
.....	

This paradigm shows that there is a sequence of phonemes that is common to every form. (It has been underlined twice). I abstract it as {miniH} and treat it as a stem to which case affixes are added.

3. An intensive study of the case affixes has been made recently. Therefore, I am not going to look into this area of language with special attention. For further details consult:
Kekulawala, S.L., The Phonology of the Noun in Colloquial Sinhalese (1964). Unpublished M.A. Thesis University of London. See below Chapter 2 pp. 36-41

These sub-categorization rules and the consonant and vowel structure of stems, impose the classification of nouns into groups. Although I am not going to undertake an explicit and detailed study in this area of the Sinhalese language, I shall present a number of representative formal scatters by way of illustration.

Stem:- {miniH} (cvcvc) 'man' [+ N, + count, + masculine]

Case	Singular	Plural
nominative	miniha	minissu
accusative	miniha	minisun
dative	minihaTə	minisunTə
instrumental	minihagen	minisungen
genitive	minihage	minisunge

Table 1.3

Stem:- {ball} (cvcc) 'dog' [+ N, + count, + masculine]

Case	Singular	Plural
nominative	balla	ballo
accusative	balla	ballan
dative	ballaTə	ballanTə
instrumental	ballagen	ballaNgen
genitive	ballage	ballaNge

Table 1.4

Stem:- {kirilli} (cvcvccv) 'bird' [+ N, + count, - masculine]

Case	Singular	Plural
nominative	kirilliyə	kirilliyo
accusative	kirilliyə	kirilliyan
dative	kirilliyəTə	kirilliyanTə
instrumental	kirilliyəgen	kirilliyaNgen
genitive	kirilliyəge	kirilliyaNge

Table 1.5

stem:- {at} (vc) 'hand' [+ N, + count, - animate]

Case	Singular	Plural
nominative	atə	at
accusative	atə	at
dative	atəTə	atvələTə
instrumental	aten	atvəlin
locative	ate	atvələ

Table 1.6

The pronouns, too, appear in all the surface cases enumerated above in Tables 1.3 - 1.6. For instance consider the following examples:

stem:- {ohu} 'he' [+ N, + PRO, + count, + masculine]

Case	Singular	Plural
nominative	ohu	ovuhu
accusative	ohu	ovun
dative	ohuTə	ovunTə
instrumental	ohugen	ovuNgen
genitive	ohuge	ovuNge

Table 1.7

stem:- {æ æ} 'she' [+ N, + PRO, + count, - masculine]

Case	Singular	Plural
nominative	æ æ	ovuhu
accusative	æ æ	ovun
dative	æ æTə	ovunTə
instrumental	æ gen	ovuNgen
genitive	æ ge	ovuNge

Table 1.8

stem:- {ee} 'it' [+N, + PRO, + count, - animate]

Case	Singular	Plural
nominative	eekə	eeva
accusative	eekə	eeva
dative	eekəTə	eevaTə
instrumental	eeken	eevaen
locative	eeke	eevae

Table 1.9

Until now I have been presenting some representative material. Certainly, it shows that Sinhalese has an elaborate morphological case system. However, the description of it is

not this simple.[1] What I want, at this stage, is to show that each noun appears in one of these morphological cases when it occurs in a sentence.

The formal scatters represented above show a singular-plural distinction. That is to say, each case has a singular form as well as a plural form. In addition to this, each singular form should be recognized as either definite or indefinite. The singular forms of all the formal scatters on pp. 18-21 are considered as terms which are marked for the feature definite. Consider the following examples. The indefinite morpheme {Ak} 'a' occurs in them.

Case	indefinite form (Singular)
nominative	minihek
accusative	miniheku
dative	minihekuTə
instrumental	minihekugen
genitive	minihekuge

Table 1.10

1. For a convincing description consult the following. Wickramasuriya, B.S.S.A., The Nominal Phrase in Sinhalese and its bearing on Sinhalese English (1965). Unpublished M.A. Thesis. University of London, pp. 58-61.

The nouns that containing features [+ N, + count, - masculine], and [+ N, + count, - animate] also have indefinite forms. Pronouns do not have indefinite counterparts. The plural forms of Sinhalese nouns are not marked for definiteness.

It is possible to deal with the singular-plural distinction and definite-indefinite distinction by means of segment structure rules.[1] Presumably this is the most economical way of dealing with them. Therefore, I propose to include in this grammar the following segment structure rules which are similar to sub-categorization rules.

(i) $N \rightarrow [\pm \text{ singular}]$

(ii) $[+ \text{ singular}] \rightarrow [\pm \text{ definite}]$

This set of rules is adequate in dealing with the problem under discussion and it simplifies the grammar.

There is a group of nouns in the language which are either inherently [+ singular] or inherently [- singular]. They should be specified in the lexicon. For instance, the joun janətaa 'people' should be marked as [+ singular] in the lexicon. It automatically indicates that the noun janətaa 'people' is sensitive to the segment structure rule (ii) [+ singular] → [± definite].

Consider the formal scatter of janətaa 'people'.

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1. Jacobs Roderick A and Peter S. Rosenbaum - English Transformational Grammar, Ginn & Co. (1968) p. 66.

Case	Singular	
	definite	indefinite
nominative	janətaavə	janətaavak
accusative	janətaavə	janətaavak
dative	janətaavəTə	janətaavəkəTə
instrumental	janətaavəgen	janətaavəkəgen
genitive	janətaavəge	janətaavəkəge

Table 1.11

The nouns væli 'sand' siini 'sugar' and piTi 'flour' are inherently plural. They are not sensitive to the segment structure rule (ii) on page 23. They have plural forms only. The following paradigm is advanced to illustrate this fact.

stem:- {siini} 'sugar'

Case	Plural
nominative	siini
accusative	siini
dative	siinivələTə
instrumental	siinivəlin
locative	siinivələ

Table 1.12

The nouns which denote qualities and properties have [+ singular] forms only. They are sensitive to the segment structure rule (ii) on page 23.

1.42 Nominative and Accusative Case-forms

There is no formal distinction between the nominative singular and accusative singular of animate nouns. The nominative and the accusative case forms of inanimate nouns are identical in their shape. At the phonological level they can be treated as the same item. But, at the level of grammar they can be distinguished. Evidence for such a distinction is provided by the following example.

(1.12) daDəyaNkaruvo koTin marənəva

Nn Na V

'hunters' 'tigers' 'kill'

'Hunters kill tigers'.

The nominal element daDəyaNkaruvo 'hunters' in Sentence (1.12) functions as the surface subject and it appears in the nominative case-form. The element koTin 'tigers' functions as the surface object and it appears in the accusative case-form. There is a formal distinction between the nominative plural and the accusative plural. On this basis I recognize that surface subject appears in the nominative case-form while the surface object appears in the accusative case-form.

Therefore, it is necessary to maintain a distinction between the nominative and accusative at the level of grammar.

1.5 Case-form Designations

The case-form designations which I use in this thesis have been taken from traditional grammatical theory. The symbols which stand for each case-form are as follows:

n = nominative

a = accusative

d = dative

i = instrumental

g = genitive

l = locative

CHAPTER 2

EARLIER APPROACHES TO THE STUDY OF CASE

2.0 Introduction

The purpose of the present chapter is to make a brief survey of the study of case by grammarians belonging to different schools.

Early Greek grammarians initiated the investigation of the structure of language; their study was restricted to observations of the forms of words; and they attempted to assign a unified meaning to each form. Roman Grammarians were highly influenced by the insights of Greek Grammarians. Indian Grammarians looked at the problem from a different standpoint.

The era of modern linguists began with the formal linguistic analysis. Structural linguists pursued the study of case within the domain of morphology.

The approach of many transformational grammarians has been different. According to their view, cases are only surface features; and they are introduced by some lower level transformations. The grammatical notion 'case' does not secure a place in the deep structure.

The case grammar of Fillmore has been formulated by

taking the notion 'case' as a linguistic primitive belonging to the deep structure. In this context the term 'case' has been used in its widest sense to denote syntactic-semantic relations.

2.1 Greek and Latin Grammarians on case

2.11 One of the most important grammatical categories recognized by ancient Greeks in their early grammatical studies was 'case' for which they used the term ptôsis.
studies was 'case' for which they used the term ptôsis.
The word ptôsis, itself gives the meaning 'falling' or 'deviation'. Every grammarian of that period paid attention to the specification of the particular grammatical category and they discussed it in greater detail.[1]

In the earlier period, the term ptôsis was used to cover a wider range.

> "In Aristotelian usage this term covers a number of grammatically relevant alterations of a descriptively basic form of a word; oblique cases of nouns, comparative and superlative degrees of adjectives, deadjectival adverbs in -ōs, like dikaiōs, justly, verbal tenses other than the present, and perhaps some other verbal inflections are all ptoseis either of

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1. Robins, R.H., 'Ancient Grammarians and Modern Linguists' in Didaskalos 1 (1964) pp. 81-89. Reprinted in Robins R.H. Diversions of Bloomsbury, pp. 101-111, North-Holland Publishing Co. (1970).

the ónoma or of rhêma".[1]

Accordingly every variation of nouns, verbs and other word classes from their basic forms was considered as a case. Ancient Greek Grammarians treated nominative forms of nouns and the present tense forms of verbs as basic forms.

The study of grammar advanced during the period of Stoic philosophers. Their philosophical attitudes led them to deep investigations about language. The technical terms used to cover a large area were given restricted and precise definitions. In this process the term ptôsis was used to denote the inflectional category of nouns and noun-like words.

R.H. Robins observed:

> "Case in its modern usage as an inflectional category of nouns and other words inflected like them was the creation of the Stoics".[2]

The Stoics formalized the case theory and recognized a five term system in Greek on the basis of morphological variations. They listed them as:

(i) nominative

(ii) vocative

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1. Robins, R.H., A Short History of Linguistics, Longmans (1967) p. 27.

2. Robins, R.H., A Short History of Linguistics, Longmans (1967) p. 28.

(iii) accusative

(iv) genitive and

(v) dative

The names of these cases have been given to coincide at least to some extent with their semantic functions.

2.12 The Latin Grammarians found no difficulty in the application of the case theory formalized by Greeks to the formally distinguished morphological realizations of nouns in Latin. The well-known Latin grammarian, Varro established the 'Latin case' or the sixth case - ablative -, thereby increasing the number of cases in Latin to six. The investigation of the category of case gradually advanced. Up to the time of Quintilian, the Latin grammarians thought that the ablative case has an instrumental use; Quintilian proposed to isolate the instrumental use of the ablative case and to consider it as the seventh case. As the discussion became more widespread, the Latin scholars who had knowledge of Greek made observations about the grammatical category, 'case' in greater detail.

2.2. Indian Grammarians on Case

The most illustrious Indian grammarian, Pāṇini who lived in the fourth or fifth century B.C. made an invaluable contribution to the advancement of the grammatical theory.

His voluminous work which consists of eight chapters - adhyāya - is called Aṣṭādhāyi.

His main object was to postulate a set of rules to account for the structure of the spoken language of his time, and to a certain extent, the structure of Vedic language.

J.F. Staal observes:

> "The object of Pāṇini's grammar was the complete description of Sanskrit as the spoken language (bhāsa) of his time and, possibly to a more limited extent, of the vedic language (chandas)".[1]

His grammar is not just a description of the word formation of Sanskrit; he discussed syntactic problems displaying a profound knowledge of the nature of natural languages. Pāṇini's grammar is not a work compiled for the use of teachers and language students; it is rather a scholarly approach to the structure of language from the linguistic point of view. Therefore, it is not a 'padagogical' grammar but a linguistic grammar.[2] Because of these qualities of Aṣṭādhyāyi, Bloomfield noted that it is "one of the greatest monuments of human intelligence".[3]

Pāṇini's insight into the language is apparently

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1. Staal, J.F., Word order in Sanskrit and Universal Grammar, D. Reidel Publishing Company, Dordrecht, Holland, (1967) p. 18.

2. Robins, R.H., op. cit., p. 144.

3. Bloomfield, Lenard, Language, p. 11.

greater than that of ancient Greek and Latin grammarians. Pāṇini and his successors held certain opinions about language that still seem to be valid. Their aim was the postulation of a finite number of rules of grammar in order to account for the structure of language. Moreover they recognized the recursive nature of grammatical rules. They agreed on the principle of the simplicity of grammar.

According to P. Kiparsky and J.F. Staal

> "Pāṇini's grammar is a system of rules for converting semantic representations of sentences into phonetic representations, via two intermediate levels which may be respectively compared with the level of deep (underlying) structure and surface structure in generative grammar".[1]

Then, Pāṇini's grammar contains four levels, namely semantic representations, deep structure, surface structure and phonetic representations. These levels contain different entities. The concepts of agent, patient, location etc. are at the level of semantics. Kāraka relations (= syntactic relations of generative grammarians) such as kartṛ, karman etc. are at the level of deep structure; morphological entities such as case-forms belong to the surface structure; their

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1. Kiparsky, P. and J.F. Staal, 'Syntactic and Semantic relations in Pāṇini in Foundations of Language, 5 (1969) p. 84.

phonological realization is at the lowest level - phonological representation. But these entities of various levels do not have one to one correspondence. Kiparsky and Staal state:

> "there is no one-one correspondence between any of these four levels. But the relation between them is not arbitrary".[1]

The most progressive opinion of Pāṇini, is to recognize deep synlactic relations and surface syntactic relations. In order to denote deep syntactic relations he used the term kāraka. Seven kāraka relations have been recognized. They are:

apadāna	'ablative'
sampradana	'dative'
karana	'instrumental'
adhikarana	'locative'
karman	'objective'
katṛ	'agentive'
hetu	'causative'[2]

Another technical term used by Sanskrit Grammarians

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1. Ibid., p. 85.

2. This translation of Pāṇini's terms gives just only a faint idea about the nature of relations denoted by kārakas. On the other hand there are some flaws in this translation because Pāṇini used these terms to denote deep syntactic relations. The terms in this translation name the expressions of deep relations. Consequently, the correct implications of Pāṇini's terms are not conveyed by the translation.

is vibhakti which is similar to ptōsis of Ancient Greeks. The surface expressions of kārakas are made by vibhakti 'case forms'. The root of the term vibhakti is vi + √bhaj which means separation, partition, division. It has been used to denote the inflexional component of cases as well as the person of a tense. Therefore, its meaning is similar to that of ptōsis.

Greek and Latin grammarians' scholarship was restricted to the study of morphological cases. They attempted to define the cases partly in semantic terms. Pāṇinis approach differs from that of ancient Greek and Latin grammarians by virtue of having various levels of description. The study of the inflectional component of cases was at the level of surface structure. The deep syntactic relations have been accounted for by means of kāraka relations. Kiparsky and Staal observe:

> "Pāṇini's main contribution to syntax is the theory of kāraka relations".[1]

The realization of kārakas belongs to the surface structure, and that aspect of language has been described by Pāṇini in detail. In the course of his description he explicitly stated that each deep kāraka relation has a basic expression. In addition to the basic expression there are a

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1. Kiparsky, P. and J.F. Staal, op. cit., p. 83.

number of secondary expressions which are determined by the linguistic environment in which it occurs.

2.3 Modern Grammarians on Case

The grammarians of the twentieth century are known as modern grammarians.

Otto Jesperson, one of those scholars who did much to foster the synchronic approach to language made some observations about the category of case: he assumed that the descriptions of cases should be based on morphology and that it is a purely grammatical category. He stated:

> "... Case is a purely grammatical (syntactic) category and not a notional one in the true sense of the word".[1]

He was well aware of the difficulties of the study of case because of its language specific nature. The number of cases should be decided on the basis of distinctive endings of nouns; the lesser the number of endings the lesser the number of cases.

F.G. Cassidy held a similar view about case and he said that a case category should be distinguished on the basis of the inflectional component and, the term 'case' can be

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1. Jesperson, Otto, The Philosophy of Grammar, London (1925) p. 185.

properly applied to denote inflection.[1]

Otto Jesperson reproved the establishment of the number of cases on the basis of meanings and the study of cases of one language according to the system of cases of another language. Eventually he came to the conclusion:

> "cases form one of the most irrational part of language in general".[2]

2.4 Modern Linguists on Case

From a formal linguistic point of view, case is a grammatical category which should be explained at the level of morophology[3] and it is involved with the forms of nouns, pronouns etc. The study of relations within words - stems and case affixes - is assigned to the province of case study.

R.H. Robins noted:

> "The category of case, involving different forms of nouns, pronouns, adjectives and some other classes of words, is prominent in the

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1. Cassidy, F.G., 'Case in Modern English' Language 13 (1937) pp. 240-245.

2. Jesperson, Otto, op. cit., p. 186.

3. Robins, R.H., 'Syntactic Analysis' in Hamp, Eric P., Fred W. Householder and Robert P. Austerlitz (eds.) Readings in Linguistics II (1966) p. 386. "... the relations within words between root and affixes and non-affixal variations in the members of paradigms (ablaut and the like), belong to morphology". This statement shows that the study of case falls under morphology.

> grammar of Latin with six different cases, ancient Greek with five, and Sanskrit, with eight, among many languages exhibiting this category".[1]

This statement very clearly represents the Bloomfieldian attitude towards the notion of case, and it seems that the Bloomfieldian view on case is not very different from that of Otto Jesperson.

Now, I am going to illustrate the way in which Bloomfieldians deal with case.

Each noun has a number of related forms which constitute a formal scatter or paradigm[2] and each term of the paradigm has a part constituted by a common sequence of phonemes. I named it as stem.[3] The endings which are different from each other are case inflections. To illustrate the facts, and the way in which they are dealt with in structural linguistics, a brief description of two representative paradigms of Sinhalese nouns is presented.

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1. Robins, R.H., General Linguistics. An Introductory Survey, Longmans (1967 Fourth impression), p. 249.

2. See above pp.18-21

3. See above p.16

stem:- {ball} 'dog' [+ N, + count, + masculine]

Case	Singular			Plural		
	stem	Affix 1	Affix 2	stem	Affix 1	Affix 2
nominative	ball	a		ball	o	
accusative	ball	a		ball	an	
dative	ball	a	Tə	ball	an	Tə
instrumental	ball	a	gen	ball	an	gen
genitive	ball	a	ge	ball	an	ge

Table 2.1

stem:- {pot} 'book' [+ N, = count, - animate]

Case	Singular			Plural			
	stem	Affix 1	Affix 2	stem	Affix 1	Affix 2	Affix 3
nominative	pot	ə		pot			
accusative	pot	ə		pot			
dative	pot	ə	Tə	pot	vəl	ə	Tə
instrumental	pot	en		pot	vəl	in	
locative	pot	e		pot	vəl	ə	

Table 2.2

The formal scatters that I have presented here contain different inflections because they have different inherent features. There is no Sinhalese noun of which all case-forms are distinguished morphologically.

The categories, number and case are fused in nominative and accusative of [+ animate] nouns in Sinhalese. This cannot be said of [- animate] nouns since some of them take a plural suffix {val}. For instance consider the sequences

geval	'houses'
raTəval	'countries'
paarəval	'road'
dorəval	'doors'

The sequence which has been underlined twice is the plural morpheme .

On the other hand, the realization of case morphemes in nominative and accusative plurals of [+ masculine] noun differs according to the vowel and consonant structure of the stem morpheme. For instance, the stem morpheme {hivAl} 'jackal' [+ N, + count, + masculine] accepts -u and -un suffixes in nominative and accusative plurals respectively. Consider the following examples:

	Singular	Plural
nominative	hivəla	hivallu
accusative	hivəla	hivalluṃ/hivəlun

The nominal stem {ball} 'dog' takes -o in nominative plural and -an in accusative plural (see page 38 above).

For the simplicity of grammar -o and -u inflections of the nominative plural are treated as different realizations (= allomorphs) of the same morpheme. -an and -un of the accusative plural are also treated in the same way. These morphemes can be represented by abstract symbols. Their different realisations are mutually exclusive.

As I previously mentioned the choice between allomorphs is determined by vowel and consonant structure of stem morphemes. The structures of the stem mprphemes under discussion are

{ball} 'dog' CVCC

{hivAl} 'jackal' CVCVC

All stem morphemes which have the inherent feature [+ masculine] and end in a long consonant (-CC) take -o suffix in the nominative plural. Those stems which have the same inherent feature and end in a short consonant (which is not /r/) accept the -u allmorph of the nominative plural morpheme. The gemination of the final C element is obligatory in the environment of -u (u = nominative plural). The stems which end in /r/ do not qualify under this general statement. The features associated with them and the nature of other case affixes are not discussed here as it is not the main object of the

present discussion.

In the study of syntactic relations in terms of the structural approach to language, reference is made to case endings because the nominals of sentences which hold different syntactic relations demands specific forms. 'NP_1 of a sentence appears in the nominative case-form; NP_2 appears in the accusative case-form'. This kind of statement is very common in linguistic descriptions which have been carried out from a structural standpoint.

The structure of stem morphemes, case morphemes and their allomorphs are adequately described within the framework of structural linguistics. However it must be pointed out that, in the study of case from the structural point of view, the emphasis is laid on the investigation of the structure of terms in formal scatters of nouns. A general linguistic description motivated by the principles of structural linguistics, therefore, is really just an inventory of elements with their contextual variants.

2.5 Transformational - Generative grammarians on Case

The linguistic tradition initiated and developed by Chomsky and his followers in called transformational-generative

grammar.[1] It has distinguished a central syntactic component and two interpretative components - a phonological component and a semantic component. The central syntactic component contains two sub-components - the base sub-component and the transformational sub-component. The categorial component and the lexicon of the base sub-component generate deep structures. "A deep structure enters the semantic component and receives a semantic interpretation, it is mapped by the transformational rules into a surface structure which is then given a phonetic interpretation by the rules of the phonological component".[2]

According to the principles of generative grammar, the syntactic relations between the elements of sentences are uniquely and uniformly defined in terms of constituents and their order.

In a linguistic description based upon this grammatical theory, the notion of case is not given a place in the deep structure. They use the term 'case' to denote the inflectional component of members of a nominal paradigm. In this respect the attitude of transformational-generative grammarians towards the notion of case is similar to that

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1. Chomsky, Noam, Current Issues in Linguistic Theory, Mouton (1967) p. 9.

2. Chomsky, Noam, Aspects of the Theory of Syntax, M.I.T. (1965) p. 141. (Hereafter Aspects).

of Bloomfieldians. So that they treat case as a feature associated with the surface structure of language. Accordingly to their mind case markers are 'surface structure reflexes introduced by rules, of various kinds of deep and surface syntactic relations'.[1]

John Lyons states:

> "... 'case' (in the languages in which this category is to be found) is not present in 'deep' structure at all, but is merely the inflectional 'realization' of particular syntactic relationships".[2]

Some generative grammarians have introduced case into the surface structure of language by means of some lower level transformations. Noam Chomsky notes:

> "... specified feature [2 case] is introduced by a rule that does not belong to the base sub-component of the syntax at all but rather to its transformational part".[3]

The case of a particular noun is determined by the place where in the constituent it happens to appear. Chomsky observes:

> "... case is usually determined by the position

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1. Fillmore, Charles J., 'The Case for Case' in Bach Emmon and Robert T. Harms (eds.) Universals in Linguistic Theory, p. 5.

2. Lyons, John, 'Towards the notional theory of the Parts of Speech' Journal of Linguistics 2 (1966) p. 218.

3. Chomsky, Noam, Aspects, p. 172.

> of the noun in surface structure rather than in deep structure, although the surface structures given by stylistic inversions do not affect case. Even in English, poor as it is in inflection, this can be observed".[1]

The transformational-generative grammarians held the view that the genitive case is associated with nominalization transformation. The distinction between the nominative case and the accusative case belongs to the surface structure and it will not appear in the terminal string generated by the base rules.[2]

The following examples illustrate the point that has been made by generative grammarians.

(2.1) John hit him.

(2.2) He was hit by John.

These two sentences are transformationally related to each other. They have a common underlying phrase-marker. It is depicted in the following tree diagram. (The tense marker is not presented).

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1. Chomsky, Noam, Aspects, pp. 221-222.

2. Chomsky, Noam, Aspects, p. 172.

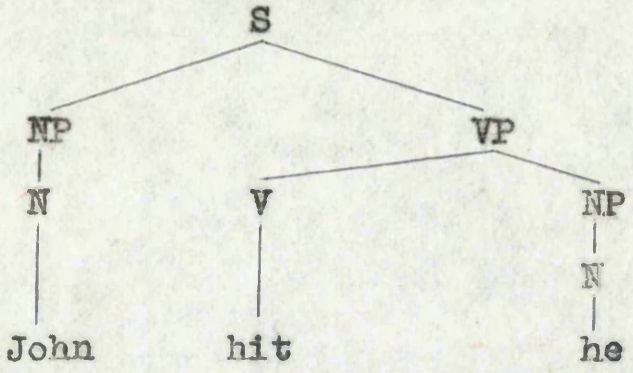

Fig. 2;1 Deep Structure of Sentences (2.1-2.2)

(In order to get the surface structure of Sentence (2.1), the accusative feature should be introduced to the NP dominated by the VP. In the application of passive transformation, as in Sentence (2.2), the NP dominated by the VP is moved to the 'surface subject' position. Then it is treated as a form which has the [- accusative] feature).

It is assumed that transformations do not affect meaning.[1] The semantic interpretation of a sentence is determined by the meaning of the lexical items involved and the grammatical relations specified in the underlying phrase-marker. The projection rules operate upon the deep structure. Transformations do not introduce new lexical items to derived phrase markers. Their function is to map underlying phrase markers into surface phrase markers. In this way, the generative-transformational grammarians have justifiably

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1. Katz, J. and Postal P.M., An Integrated Theory of Linguistic Descriptions, M.I.T. (1964) p. 71.

relegated morphological case distinctions to the surface structure of sentences.

In order to get the actual surface realization of Sentence (2.1) it is necessary to apply case transformation to the noun-phrase immediately dominated by the verb phrase of the structure depicted in Figure 2.1. Chomsky states:

> "the features involved in the case dimension are certainly added to a formative by rather late transformations (since case often depends on the aspects of surface rather than deep structure----)".[1]

The transformational rule which introduces the feature [+ accusative] to NP immediately dominated by VP converts the ungrammatical construction 'John hit he' into Sentence (2.1) 'John hit him'.

All these grammarians and linguists treated case as a phenomenon associated with the surface structure of language. They have used the term 'case' in a well-defined way and have dealt with it within these limitations.

In every language, there are devices which are similar to case inflections. They mark syntactic relations between the constituents of sentences. In English, it is prepositions and word order at the expense of case inflections. Hindi employs a system of post-positions whereas Sinhalese

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1. Chomsky, Noam, Aspects, p. 177.

has a fairly elaborate system of case inflections. All these devices can be treated as functionally equivalent.

2.6 Meanings of Case Affixes

It should be asked whether case inflections are only surface level markers of underlying syntactic relations? Do they have semantic implications?

The members of a paradigm of a noun are in contrast. Consider

gamə	'village'
gamətə	'village-to'
gamen	'village-from'
game	'village-in'

It is obvious that these forms appear in different cases and they seem to have different meanings. gamə 'village' is treated as the most neutral form.

gamətə 'village-to' denotes goal, while
gamen 'village-from' is usually used for source.
game 'village-in' is the common form for location.

Native speakers feel that the members of a paradigm represent various phases of meanings. Nevertheless the suffixes such as -tə, -en, -e which occur with nouns do not have independant semantic content. These suffixes signal the syntactic environment in which a particular lexical item occurs.

2.7 Fillmore on Case

Charles J. Fillmore investigated the notion of case from a different standpoint. He uses the term 'case' in its widest sense to denote the deep-structural syntactic-semantic relations. His claim is that 'case' should be given a place in the deep structure. Fillmore works out the problem within the conceptual frame work of transformational grammar and attempts to make necessary alterations in the grammatical model proposed by Noam Chomsky in order to accommodate his assumptions. The result of these innovations is 'Case Grammar'.

The following publications by Fillmore contain the principles of Case grammar.

(i) 'Towards a Modern Theory of Case' (1966)[1]

(ii) 'A proposal concerning English Prepositions (1966)[2]

(iii) 'The Case for Case (1968)[3]

(iv) 'Lexical Entries for Verbs' (1968)[4]

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1. The Ohio State University Project on Linguistic Analysis, Report No. 13 pp. 1-24. Reprinted with slight revision in Reibel David A. and Sanford A. Schane (eds.) Modern Studies in English (1969) pp. 361-375.

2. Dinneen, F.P. (ed.) Monograph Series on Languages and Linguistics No. 19 (1966) George Town University pp. 19-33.

3. Bach Emmon and Robert T. Harms (eds.) Universals in Linguistic Theory, Holt, Rinehart and Winston, Inc. (1968) pp. 1-88.

4. Foundations of Language 4 (1968) pp. 373-393.

(v) 'Types of Lexical Information' (1969)[1]

(vi) 'The Grammar of Hitting and Breaking' (1970)[2]

The details of case grammar represented by these publications are discussed below.[3]

2.8 Case and Case-form

Fillmore differentiate 'case' from 'case-form'. Such a differentiation is crucial in any theory of case grammar set up within the framework of transformational grammar. Fillmore asserts:

> "I shall adopt the usage first proposed, as far as I can tell, by Blake (1930), of using the term case to identify the underlying syntactic semantic relationship, and the term case-form to mean the expression of a case relationship in a particular language - whether through affixation, suppletion, use of clitic particles or constraints on word-order".[4]

Many grammarians and modern linguists, before Fillmore, restricted their case study to the observation of

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1. Kiefer, F. (ed.) Studies in Syntax and Semantics, D. Reidel, Dordrecht, Holland (1969) pp. 109-137.
2. Jacobs Roderick A. and Peter S. Rosenbaum (eds.. Readings (1970) gs in English Transformational Grammar, Ginn and Com. (1970) pp. 120-133.
3. See Chapter 3 of this thesis.
4. Fillmore, Charles J., 'The Case for Case', p. 21.

case-forms. The present study divorces the term case from its traditional sense and it is used to denote syntactic-semantic relationships between the nominal elements and the verb in a sentence. The language-specific, overt shapes of nominals are identified by the term case-form. Hereafter, in this thesis the terms Case and case-form are used (as Fillmore suggests) to name two distinctive concepts associated respectively with the deep structure and the surface structure. So that Case is a deep structural entity found in all languages.

CHAPTER 3

FILLMORE'S CASE GRAMMAR

3.0 Introduction

The conception of case grammar, which contains a number of insights about language in general, is the subject of this chapter.

The empirical adequacy of case grammar is not tested in detail in this chapter. The basic assumptions, the grammatical categories of case grammar, and the way in which the grammatical rules account for the structure of certain sentences are discussed.

Fillmore states that case grammar is a modification of transformational generative grammar proposed by Noam Chomsky. The ideas of formal and substantive linguistic universals occupy a prominent place in case grammar as well as in the theory of transformational generative grammar. The formulation of phrase-structure rules has taken a different shape in case grammar. The bi-partite devision of sentences into the Noun Phrase and the Predicate Phrase has been abandoned.

Case grammar contains a semantically justified syntactic deep-structure. In the specification of case-frames

the rôles played by the participants of the action, process or state denoted by verbs are seriously taken into account.

3.1 Objective of Case Grammar

Fillmore's main objective in suggesting the modification of transformational generative grammar is to support the idea of universal grammar. His belief is that the most straightforward deep structure commonalities between languages are to be sought at the 'deepest' level.[1] The primitives of case grammar operate at the deepest level of language and they are mapped onto surface structures by means of grammatical transformations.

What is the 'deepest' level of language?

According to Fillmore's view that the deepest level of language can be represented thus: the sentence in its base structure contains two main constituents, namely - the proposition and the modality. The proposition consists of a verb and one or more noun-phrases, each associated with the verb in a particular case relationship such as Agentive, Objective etc. These case relations are semantically relevant. A linguistic investigation which aims for the discovery of linguistic universals should be initiated at this 'deepest'

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1. Fillmore, Charles J., 'The Case for Case', pp. 51-52.

level.

If the suggestion of Fillmore is acceptable or if it provides the basis for a descriptive apparatus to give an adequate description of sentences, the deep structure proposed by Chomsky turns out to be an artificial intermediate state.

Fillmore notes in his main thesis on case grammar:

> "If it is possible to discover a semantically justified universal syntactic theory along the lines I have been suggesting, if it is possible by rules (beginning, perhaps, with those which assign sequential order to the underlying order free representations) to make these 'semantic deep structures' into the surface forms of sentences, then it is likely that the syntactic deep structure of the type that has been made familiar from the work of Chomsky and his students is going to go the way of the phoneme".[1]

3.2 Basic Assumptions

The work of Fillmore - 'The Case for Case' - can be treated as a contribution to universal linguistic theory. At the outset of the discussion, Fillmore draws the reader's attention to two main points, namely:

I. The contrality of syntax

II. The importance of covert categories.

They are relevant to any serious grammatical theory which aims for an adequate linguistic description. Every grammatical

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1. ibid., p. 88.

theory in which the syntax is central, describes word forms with respect to syntactic relations, but not the other way round.

The importance of covert categories has been greatly emphasized in case grammar. Some constituents lack overt markers of the syntactic-semantic relationships they hold with the other constituents of the sentence. In such situations the investigation of sentences and other constructions (which are below the level of the category sentence) transformationally related to base sentences is extremely helpful in finding the nature of the elements in the deep structure. The most important point is that the deepest syntactic-semantic relations between the elements of strings are constant in spite of their various transformational possibilities. The occurrence of adjuncts[1] does not change the nature of basic relations.

3.21 Linguistic Universals and a Universal Base

Fillmore asserts the importance of substantive and formal linguistic universals in the description of language. The categories S(entence), N(oun) P(hrase) and Predicator are treated as substantive universals; and they are found in

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1. See below p. 67 footnote 1

linguistic descriptions of all languages. Fillmore's claim is that the grammatical category 'Case' should be given a place in the deep structure; and accordingly 'Case' is a category which can be employed to describe the sentence structures of every language. Thus it turns out to be a substantive linguistic universal.

Fillmore's work represents an attempt to formulate a universally valid base structure in which case relations are primitives. The array of case categories necessarily specifies the syntactic-semantic relations between the elements.

Chomsky proposed a syntactic base which is formalized by phrase-structure rules. The necessary grammatical relations between the elements of the base are specified by means of a system of rewriting rules. The base structure of case grammar is different from it by virtue of the specification of grammatical relations in terms of Cases which are directly related to semantics. The standard theory defines the notions of 'deep subject' and 'deep object' configurationally. That is to say, the NP which is immediately dominated by the major category S is called the subject and the NP immediately dominated by the category VP is the direct object. Case grammar does not contain such configurational definitions in its base component. It defines syntactic-semantic relations between the elements of the base structure in categorical

terms such as Agentive, Objective etc. Fillmore used the term 'pure relations' to indicate the method in which the standard theory has defined syntactic relations. The term 'labelled relations' has been used to name the method of specification of syntactic relations in case grammar.

Case grammar consists of a base component and a set of transformational rules. The function of the base component is to characterize the underlying structures of sentences. The mechanism which maps the underlying structures into surface structures is constituted by transformational rules.

3.3 Base Rules

A sentence consists of two major constituents. They are:

I Proposition - 'a tenseless set of relationships involving verbs and nouns (and embedded sentences if there are any)

II Modality - 'it includes negation, tense, mood and aspect'.

The present discussion excludes the description of the modality constituent.

The basic constituent structure of a sentence is represented by the following rule and it turns out to be the initial rule of case grammar.

(3.1) S → M(odality) + P(roposition)

The description of relations between the elements of the P constituent lies within the domain of case grammar. The P constituent is expanded as a verb and one or more case categories. Each case category dominates two constituents. They are the case marker which is represented by the symbol K (from Kasus) and a noun phrase. Fillmore suggests an alternative representation of the case marker; that is, to treat it as an obligatory constituent of the noun phrase.

Fillmore asserts:

> "The deep structure of (the propositional component of) every simple sentence is an array consisting of a V plus a number of NP's holding special labelled relations (cases) to the sentence. These relations, which are provided for categorically, include such concepts as Agentive, Instrumental, Objective, Factitive, Locative, Benefactive and perhaps several others".[1]

The linguistic facts discussed so far can be represented by rules.

(3.2) $P \rightarrow V + C_1 + \ldots\ldots + C_n$

$C_1 \ldots C_n$ have been used as cover symbols for case relations. $C_1 \ldots C_n$ are members of Agentive, Instrumental, Objective etc.

(3.3) C → K + NP

The speakers of language have experience of the

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1. Fillmore, Charles J., 'The Case for Case' pp. 31-32.

participant rôles which are associated with each action process or state identified by the verb. Each case category of case grammar stands for the participants. So that case notions are universal concepts. They are absolute functional relations. Fillmore notes:

> "The case notions comprise a set of universal, presumably innate, concepts which identify certain types of judgements human beings are capable of making about the events that are going on around them, judgements about such matters as who did it, who it happened to and what got changed".[1]

3.31 Case Categories

Fillmore does not specify the ultimate number and designations of case notions which appear to be essential in a linguistic description, but he specifies and defines some case categories. Language students are allowed to postulate additional Cases if there is adequate evidence to support the specific category.

The case categories postulated by Fillmore are listed here in order to facilitate the present discussion.

> "Agentive (A) - the case of the typically animate perceived instigator of the action identified by the verb.

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1. op. cit., p. 24.

Instrumental (I) - the case of the inanimate force or object causally involved in the action or state identified by the verb.

Dative (D) - the case of the animate being affected by the state or action identified by the verb.

Factitive (F) - the case of the object or being resulting from the action or state identified by the verb, or understood as a part of the meaning of the verb.

Locative (L) - the case which identifies the location or spatial orientation of the state of action identified by the verb.

Objective (O) - the semantically most neutral case, the case of anything representable by a noun whose role in the action or state identified by the semantic interpretation of the verb itself; conceivably the concept should be limited to things which are affected by the action or state identified by the verb. The term is not to be confused with the notion of direct object, nor with the name of the surface case synonymous with accusative".[1]

A number of additional Cases have been suggested in the course of discussion.

They are:

Comitative Case (C) - this case is associated with comitative constructions and the co-ordinate conjunction

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1. op. cit., pp. 24-25.

of noun phrases. It has a very special status in case grammar.[1]

Benefactive (B)[2]

Time (T)[3]

The constituent structure rules discussed so far are recapitulated.

(3.1) $S \rightarrow M + P$

(3.2) $P \rightarrow V + C_1 + ... + C_n$

where C is one of A,I,D,F,L,...

(3.3) $C \rightarrow K + NP$

At this point, I do not intend to say anything particular about the deep structural validity of these Cases and their definitions. Nevertheless, it should be stated that the case category, Comitative presumably belongs to the superficial level of language.[4] Consequently, it can be removed from this list. The definition of the Objective case implies that only those nouns with the feature [- animate] may function as Objective elements in sentences. Apparently such an assumption cannot be maintained in case grammar

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1. op. cit., pp. 81-83.

2. ibid., p. 32.

3. ibid., p. 32.

4. See below Chapter 9 pp. 274-288

without multiplying the present number of case categories. So, I prefer accepting the occurrence of [+ animate] as well as [- animate] nouns as Objective elements to increasing the number of case categories.

3.32 Exemplification and General Principles

Fillmore exemplifies each case category which he postulates. Some of his examples are:

(3.4) The door (O) opened.

(3.5) John (A) opened the door (O).

(3.6) The key (I) opened the door (O).

(3.7) John (A) opened the door (O) with a chisel (I).

(3.8) John (D) believed that he would win.

(3.9) Chicago (L) is windy.

(3.10) John (A) built the table (F).

(3.11) He (A) is coming with his wife (C).

Benefactive and Time have not been exemplified. According to Fillmore, the semantic relation between the verb open and the nominal door is constant in sentences (3.4 - 3.7). Sentence (3.5) has an Agentive. Sentence (3.6) contains an Instrumental in addition to Objective. Sentence (3.7) has Agentive, Objective and Instrumental constituents. The present description, however accounts for the relations between the sentences of this set.

Fillmore postulates some general principles operating in case grammar.

A. No case relationship occurs more than once in a simple sentence.

B. Only noun phrases representing the same case relationship can be conjoined. Therefore 'John and the hammer broke the window' is an unacceptable sentence, although 'John broke the window with a hammer' and 'A hammer broke the window' are acceptable.

C. The process of sentence embedding is done under the case category O. That is, insert sentences have Objective relation to the verb of the matrix sentence.

3.4 The Order of Elements in the Deep Structure

The main objective of case grammar is to support the idea of inventing a deep structure which is common to all languages. One of the crucial problems associated with such a common deep structure is the order of underlying elements. Fillmore states:

> "A common assumption is that the universal base specifies the needed syntactic relations, but the assignment of sequestial order to the constituents of base structures is language specific".[1]

However, case grammar lacks explicit theoretical discussions about the constituent order of the base structure. Fillmore says:

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1. 'The Case for Case', p. 1.

> "Questions of linear ordering are left untouched or at least unresolved, ..."[1]

Fillmore's practice shows that he assigns a particular order to the base structure elements. It fits the sequential order of words of the surface structure of English sentences. He states it elsewhere:

> "The order presented here was chosen because it matches that of the subject and object noun-phrases in the corresponding active sentence in English".[2]

In the absence of explicit theoretical discussions, it is possible to gather from 'Closing words' of 'The Case for Case', that Fillmore claims for order-free underlying representations.[3]

A grammatical theory which specifies deep structures with a free order of constituents should be supplemented with a set of rules which has the effect of assigning a particular order to the constituents of the base before the application of transformational rules to map them onto surface structures.

For the time being, we have to leave the problem of the order of constituents of the deep structure as an unsolved one and it is open to empirical investigation.

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1. Ibid., p. 2.
2. Charles J. Fillmore, 'Lexical Entries for Verbs' in Foundations of Language 4 (1968), p. 374.
3. 'The Case for Case', p. 88.

3.5 Notation

The phrase structure component of case grammar employs the arrow notation (→) through out. The validity of it has been mentioned by Fillmore as:

> "The arrow notation is used throughout, but this should not be interpreted as meaning that the proposal for a case grammar requires an assumption of a left-to-right orientation of the constituent symbols of the rewriting rules".[1]

Case grammar says that each verb occurs with one or more noun-phrases. Each noun-phrase holds a particular relation - such as Agentive, Objective etc. - to the verb. Information of this kind should be included in the lexicon of a case Grammar in terms of formulae. Those formulae of case grammar are called 'case-frames'. For instance, the case-frame of the verb 'open' is

open +[—— O (I) (A)]

The dash denotes where the verb occurs, the symbols to the right specify the Cases which occur with the particular verb. The parantheses indicate that the elements are optional.

Moreover, Fillmore introduces linked parenthesis notations e.g. 'kill' +[—— D + (I)(A)] to indicate the fact that at least one of the linked elements must be chosen.

Each frame feature is represented with the symbol

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1. 'The Case for Case', p. 24, footnote 30.

+ or - in front of it. The symbol + or - indicates whether the frame feature will or will not accept the lexical item with which the feature is associated.

3.6 Lexical Selection

There are two main problems of lexical selection, that of the nouns and that of the verbs.

The selection of nouns into appropriate environments depends upon the features required by each case category. The rules which specify these features are obligatory in case grammar. The representative rule formalized by Fillmore is:[1]

N → [+ animate]/A, D [X —— Y]

This rule indicates that the Agentive and Dative Cases accept only nouns with the feature [+ animate].

The Instrumental and Locative case categories in Sinhalese presumably accept only nouns with the [- animate] feature. Perhaps, further investigation might disprove this statement. Until then, I hold this opinion. The other case categories, Objective and Factitive accept either [+ animate] or [- animate] nouns.

The following set of rules specifies the features required by each case category.

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1. 'The Case for Case', p. 26.

(i) $N \rightarrow$ [+ animate]$/^{A, D}$

(ii) $N \rightarrow$ [- animate]$/^{I, L.}$

(iii) $N \rightarrow$ [α animate]$/^{O, F.}$

The symbol α is a variable. It stands either for + or -

These rules can be conflated into a single rule.

(iv) $$N \rightarrow \begin{cases} [+ \text{ animate}]/^{A, D.} \\ [- \text{ animate}]/^{I, L.} \\ [\alpha \text{ animate}]/^{O, F.} \end{cases}$$

The arrow notation in these rules (i - iv) indicates that the category N must contain the feature specified by the symbol to the right.

3.7 Lexicon

The lexicon is a part of the descriptive apparatus of transformational generative grammar. All idiosyncratic features of lexical items are accounted for by the lexicon without leaving any room for the grammar to generate deviant santences.

It is assumed that the verb is primary with respect to the normal functioning of language in particular situations.[1] Therefore many scholars give priority to verbs among lexical

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1. Lyons, John, 'Towards a notional theory of the parts of speech' in Journal of Linguistics Vol. 2 (1966) pp. 230-233.

items.

Case grammar takes full advantage of this view and exploits it. A satisfactory theory of lexical items precisely states the character of each verb, and this information is very useful for the operation of case grammar.

Apart from the description of the basic or central meaning of a verb, the lexicon must specify the number and the nature of actants or participants that are inherent in the meaning of a verb. In addition to them, there are a number of optional elements which appear with each verb e.g. Time and Locative.[1] The Optional elements are treated as

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1. The Time and Locative elements occur with almost all types of verbs. They are treated as adjuncts, and they can be removed without affecting the syntactic nature of the rest of the construction. Consider the examples:
   (a) mahaacaaryəvaraya maTə iiye hamu vuna.
   'I met the professor yesterday.'
   (b) mahaacaaryəvaraya maTə nuvarə di hamu vuna.
   'I met the professor at Kandy.'
   The Time and Locative elements of sentences (a) and (b) can be easily removed. Consider the example:
   (c) mahaacaaryəvaraya maTə hamuvuna
   'I met the professor.'
   Sentence (c) is syntactically complete. Therefore the Time and Locative elements in Sentences (a) and (b) are treated as adjuncts.
   Sometimes, however, they function as complements. Consider the following sentences:
   (d) perəhæ ra agoostumaase pæ vatvenava
   'The procession is in August.'
   (e) perəhæ ra nuvarə pæ væ tvenəva.
   'The procession is in Kandy.'
   The Time and Locative elements in Sentences (d) and (e) cannot be removed without affecting the syntactic nature

Footnote contd. on next page

non-inherent in the meanings of verbs. It is the function of the lexicon to specify these non-inherent actants, too. These actants or participants are known as 'Case categories' in the theory of case grammar.

When the statements which specify the participants of actions or processes denoted by verbs are in abbreviated form they are called 'case-frames'. Case-frames are a particular kind of lexical insertion rule. The 'strict subcategorization' and 'selectional restriction' devices of the standard theory have been incorporated into the specification of case-frames.

Fillmore has specified frame-features for a number of verbs. Some of them are repeated here to illustrate the procedure of the specification of case-frames.

(3.12) open +[—— O + (I) + (A)]

This rule indicates that the verb open is accepted into the specified case-frame. The Objective case is obligatory in the environment of the verb open. The other

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Footnote 1 contd. from previous page

of these sentences. The construction:

(f) * perəhæ rə pæ væ tvenəva

*'The procession is' is syntactically not complete. Therefore the Time and Locative elements of sentences (d) and (e) are complements. For further discussion see Chapter 4 pp. 121-124 of this thesis.

elements in parentheses are optional. The examples given by Fillmore are repeated below.

(3.13)	The door opened	O
(3.14)	John opened the door	O + A
(3.15)	The wind opened the door	O + I
(3.16)	John opened the door with a chisel	O + A + I.

To Fillmore's mind the verbs in sentences (3.13 - 3.16) are semantically identical, but syntactically different. The frame-feature expression [—— O + (I) + (A)] shows the distinct case environments (illustrated by sentences (3.13 - 3.16)) in which the verb open occurs. The specification of case categories in this way (the optional categories in parenthesis) is called the facultative representation of case categories in case-frames. This is a way of describing the grammar of the verb open. By using this device it is possible to reduce the number of lexical entries and the semantic descriptions in the lexicon. Nevertheless, the adequacy of Fillmore's treatment is questionable.[1]

The frame features have the effect of classifying verbs in the language according to the sentence type into which they may be inserted. The notion of 'sentence type' is expressed by the array of distinct Cases, and these

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1. See below pp. 72-86

sentence types are expected to have universal validity.

The lexicon of a particular grammar must contain some other information such as whether a verb accepts a surface subject and a surface object. This type of information is relevant to the generation of sentences in that particular language. Again this information imposes a classification of verbs. All verbs in some languages - for instance in English - take surface subjects; whereas certain verbs in Sinhalese occur in sentences where no element can be identified as the surface subject.[1]

Therefore, the lexicon must provide the information necessary for the operation of grammatical transformations.

3.8 Transformational Rules

The underlying structure of a sentence is mapped onto a surface structure by a set of grammatical transformational rules.

Deep cases denote abstract syntactic-semantic relationships. Their realization at surface level may take different shapes. One deep case may be realized by two different case-forms in two different environments. In the

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1. The sentences without surface subjects are explained in Chapter 4, Section 4.36 and in Chapter 8 pp. 239-258 below.

same way, a single case-form may stand for two different deep cases. The features of this sort are treated as language specific.

Fillmore's case grammar contains some transformational rules for English. Subjectivalization and objectivalization are two processes carried out by promotion of selected elements to the positions of surface subject and surface object. Fillmore defines the surface subject and surface object with reference to their position in the linear order of constituents of the surface structure.

The subjectivalization process moves the selected noun-phrase to the surface subject position (which is in front of Modality). Then, it is directly subjoined to the category S. The noun-phrase selected as the surface object is moved to a position immediately after the verb and subjoined to the P(roposition).

In the environment of one-place verbs, the obligatory noun-phrase which occurs with it appears as the surface subject. In such environments the surface subject is uniquely determined. Fillmore has postulated a representative rule for the choice of 'unmarked' surface subject in English sentences,[1] but such a generalized rule for the choice of surface object

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1. 'The Case for Case', p. 33.

does not appear in his discussion.

Fillmore has explained subjectivalization and objectivalization as processes that have the effect of neutralizing the underlying case distinctions.

3.9 Case grammar and Innovations

3.91 The present theory of syntax - case grammar - contains some significant properties. Firstly, it utilizes categorical symbols which are directly related to meanings. In other words, case relations are intended to reflect semantic relations. Such a methodological device facilitates the semantic description of sentences. Secondly, case grammar provides the language students with a descriptive apparatus that describes the structure of sentences of the following kind in a natural way.[1]

(3.17) lamaɣaTə baDəginiyi

'child-to' 'hungry'

'The child is hungry'.

(3.18) maTə mahansi yi

'me-to' 'tired'

'I am tired'.

The structure of sentences with non-volitional verbs

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1. See Chapter 4 Section 4.32.

can be described adequately within the framework of case grammar.[1] Moreover, the grammar of constructions containing the 'Existential verb':

(3.19) maTa potak tiyənəva

'me-to' 'book-a' 'is'

'I have a book'.

are easily described by this grammatical model.

Nevertheless, case grammar contains a number of defects. They can be remedied by making some theoretical innovations.

3.92 Fillmore holds the view that pairs of verbs such as like/please, die/kill, see/show, hear/listen are semantically identical but syntactically different. Therefore they are synonymous. However the validity of this assumption must be questioned.

The verbs like and please are inserted into the case-frame [—— O +D]. The difference between these two verbs depends upon the application of the subjectivalization rule; in the environment of like the subjectivalization is applied to the Dative element while in the environment of please, it is applied to the Objective element.

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1. See Chapter 8 of this thesis.

Fillmore draws the reader's attention to another kind of synonymy. The pairs such as hear/listen, know/learn, see/look illustrate it. The difference between the members of each pair is in the choice of one case or another. The verbs hear, know and see are accepted into the case-frame [—— O+D] while listen, learn and look are accepted into the case-frame [—— O + A]. Fillmore says that the verb listen does not have a special property which is different from hear; but the person identified by the Agentive element which occurs with the verb listen actively participates in the process denoted by the verb listen. However, Fillmore specifies case frames for these verbs individually. It seems that the 'facultative representation' of case categories in case-frames does not work in connection with the pairs such as hear/listen. I believe that there is a semantic distinction between hear and listen. Fillmore's proposal is to account for this semantic distinction by specifying different case categories in the case-frames. Verbs such as hear and listen contain a common set of semantic features but they differ from each other only by a single semantic feature which I call [volitional].[1] To my mind the difference between case-frames for hear ([—— O + D] and listen [—— O + A]) is due to this

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1. See Chapter 8 of this thesis.

semantic difference. However these verbs - hear type verbs and listen type verbs - enter into different deep structures.

According to Fillmore the pairs die/kill represent another kind of synonymy. The verb die is inserted into the case-frame [—— D] while the verb kill is inserted into the case-frame [—— D(I)(A)]. The difference between die and kill depends upon the presence or absence of a particular case category. One of the objects of this kind of analysis is to reduce the number of semantic descriptions in the lexicon. According to Fillmore the semantic characterization of die and kill is the same, but the semantic interpretation of sentences in which these verbs occur is different. However, some questions can be raised against this treatment.

English has two members in die/kill set, but Sinhalese has three members, namely:

mæ renəva	'die'
maranəva	'kill'
maravanəva	'Cause NP to kill'

Therefore the case-frame for these verbs must be [—— D + (A) + (A)]. It seems the Agentive elements can be added to this kind of case-frames indefinitely. (This is a theoretical possibility). Consider the following examples:

(3.20) sisyaya duvanəva

'The student runs.'

(3.21) mahattəya sisyəya duvəvənəva

'The master runs the student.'

(3.22) guruvərəya mahattəya lavva sisyəya duvəvənəva

'The teacher causes the master to run the student.'

(3.23) əmətiya guruvərəyaTə kiyəla mahattəya lavva sisyəya duvəvənəva

'The minister gets the teacher to cause the master to run the student.'

According to Fillmore's opinion the semantic characterization of the verbs in Sentences (3.20 - 3.23) is the same, but the semantic interpretation of Sentences (3.20 - 3.23) is different. Then the case-frame for the verb duvənəva 'run' can be specified as [—— A + (A) + (A) + (A)].

Surely this is a phenomenon associated with the recursive nature of language. Now, it should be asked whether case grammar can describe this phenomenon by multiplying the number of Agentive elements in case-frames. Where is the limitation of the specification of case categories in case-frames? Can we organize a unified grammar by representing the facts of the recursive nature of language in case-frames?

In order to overcome these difficulties, I suggest that the verbs die and kill should be treated separately. They enter into two different deep structures. The basic reason for it is that the verb kill is semantically more

complex than the verb die. (I shall take up this problem again in Section 3.93). Therefore, I propose to abandon the idea which says that the verbs die and kill are synonymous.

One of the difficult parts of case grammar lies in the enumeration of members of the finite set of rôle types. Fillmore directly states:

> "The most serious difficulties have had to do with specifying exactly what this small set of role types consisted of, and determining whether or not it would turn out to be necessary, at least for some verbs, to interpret some arguments as serving two role functions simultaneously".[1]

Those problems which arise in the application of case grammar have been discussed by Fillmore to a certain extent. Apart from them, as a consequence of inadequacies of the general framework, the linguistic investigator has to make some contradictory statements in the strict application of case grammar. The nature of such contradictory statements and a satisfactory way to eliminate them are discussed in the following pages.

3.93 In this section the validity of the specified case-frames for certain verbs is questioned. According to Fillmore the frame feature for 'open' is

(3.24)

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1. Fillmore, Charles J., 'Subjects, Speakers and Roles' in Working Papers in Linguistics No. 4, (May 1970), The Ohio State University. See Section 41.

(3.24) + [—— O + (I) + (A)]

The Objective element is obligatory while the Instrumental and the Agentive elements are optional. It has been exemplified by the following examples:

(3.25) The door opened O

(3.26) John opened the door O + A

(3.27) The wind opened the door O + I

(3.28) John opened the door with the chisel O + A + I

For the time being the description of sentence (3.27) is ignored.

Fillmore assumes that all these sentences are simple.

If we strictly adhere to the present formulation of case grammar, we transgress one of the basic principles of case grammar in the specification of frame features for some verbs. The violation of principles is exemplified by investigating the structure of following English and Sinhalese sentences. (First two examples have been taken from Halliday).

(3.29) The prisoners marched. V + A

(3.30) He marched the prisoners V + A + A

(3.31) The horse jumps (over the fence) V + A

(3.32) Lester jumps the horse (over the fence) V + A + A

(3.33) sisyəya duvənəva V + A

'The student runs.'

(3.34) guruvəraya sisyəya duvəvənəva V + A + A

'the teacher' 'the student' 'make to run'

'The teacher makes the student run.'

(3.35) laməya anDənəva V + A

'The child cries.'

(3.36) billa laməya aňDəvənəva V + A + A

'the kidnapper' 'the child' 'make to cry'

'The kidnapper makes the child cry.'

The pairs of sentences (3.25 - 3.26) and (3.29 - 3.36) are similar in structure. The first member of each pair of sentences contains an 'intransitive' verb while the second contains a 'transitive' verb. The nominal of Sentence (3.25) has the feature [- animate] while Sentences (3.29, 3.31, 3.33) and (3.35) have nominals with the feature [+ animate]

The nominals with the feature [+ animate] in these sentences can be specified as Agentive elements. Then the main problem arises in connection with the specification of case relations in sentences (3.30, 3.32, 3.34) and (3.36). Each of these sentences contain two nominal elements. The nominal which have been brought over from the first sentence of the pair is recognized as Agentive. What is the case category of the other nominal? Presumably, it is an Agentive.

Then, every second member of the above pairs of sentences contains two Agentive elements. If Sentences (3.30, 3.32, 3.34) and (3.36) are treated as simple sentences, such a specification of case relations is unacceptable because of obvious reasons. Fillmore asserts:

> "The 'emplanatory' use of this framework resides in the necessary claim that, although there can be compound instances of a single case (through noun-phrase conjunction), each case relationship occurs only once in a simple sentence".[1]

A simple sentence does not tolerate two identical case relations. There is no overt problem in connection with Sentence (3.26) 'John opened the door' because one of the nominals has the feature [+ animate] while the other has [- animate] and they belong to different case categories - 'John' is Agentive, 'the door' is Objective.

The case combinations, such as [V + A + A] are to be ruled out because they violate a basic principle of case grammar.

Because of these inadequacies of the framwork of case grammar, it is incumbant upon the investigator to provide a satisfactory device which is powerful enough to assign a structural description to the sentences under discussion.

(It should be borne in mind all these contradictory

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1. 'The Case for Case', p. 21.

or erroneous statements arise as a consequence of treating the verbs in the above pairs of sentences as identical).

There are two ways to deal with this problem. One of them is to abandon the principle which says 'each case relationship occurs only once in a simple sentence'. In fact, it is not advantageous to do away with it because it has serious repercussions upon the operation of transformational rules such as subjectivalization and objectivalization. The case categories of sentences to which these rules are applied should be specified unambiguously. Therefore, it is expedient to maintain the above mentioned principle of case grammar through-out.

The second way out from this difficulty results from treating the first member of each pair of sentences as a simple sentence and the second member as a complex sentence. The complex sentence contains at least two main clauses. The sentences of the pair are related to each other by including the first sentence in the predicate phrase[1] of the second sentence. To distinguish them from one another the first sentence of the pair is named as <u>non-causative</u> and the second sentence is <u>causative</u>. The verbs of causative sentences

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1. In this context, I use the term 'predicate phrase' to denote the VP of the bi-partite devision of a sentence into NP + VP.

contain a component which can be specified as [+ causative]

Now, I have come to the conclusion that the verbs which occur in the sentences of each pair are not identical, but they are related to each other in a significant way. The information regarding this lexical relation and their structure should be included in the lexicon.

Fillmore gives a convincing description of the lexical relation of this type.[1] He states that it is possible to show that one predicate is conceptually a part of another. He says:

> "a two-place predicate is seen as definitionally part of the meaning of a three place predicate; .... a one-place predicate is definitionally part of a two-place predicate".[2]

This statement can be accepted with reserve because there are genuine two-place[3] and genuine three-place verbs.[4] The genuine two-place and three-place verbs do not have related one-place and two-place verbs respectively.

This statement, however shows that Fillmore is well aware of the possibility of expressing the relationship between

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1. Fillmore, Charles J., 'Lexical Entries for Verbs' in Foundations of Language 4 (1968) pp. 373-393.

2. op. cit., pp. 377.

3. See Chapter 5, Section 5.2.

4. See Chapter 5, Section 5.3.

predicates through an intermediate predicate - cause. Therefore, in spite of the identical morphological realization of the verbs in sentences (3.25 - 3.26) they can be differentiated. The verb in Sentence (3.26) can be represented as

(3.37) Open = $\text{Cause}_{[\text{open}]}$

This method offers a satisfactory device to explain the relation between predicates.

Therefore, I propose that the representation of Cases in case-frames by Fillmore should be revised to accommodate the presentation of the predicate cause. It will increase the explanatory power of the present grammatical model. Such a revised case grammar may give a satisfactory linguistic description to Sentences (3.25 - 3.36) without failing to capture the (complex) nature of verbs that occur in them.

In this process, I adopt the procedure followed by George Lakoff.[1] An abstract causative pro-verb is postulated. It is similar to the intermediate predicate of Fillmore.

It is possible to specify a case-frame for the causative verb. It accepts at least two case categories - namely Agentive and Objective. The Objective element should

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1. Lakoff, George. Irregularity in Syntax, Holt, Rinehart and Winston Inc. (1970) pp. 91-98. See Chapter 7 of this thesis.

be rewritten as S. Therefore the frame feature for the causative verb is:

(3.38) Causative verb + [—— A + O]

On the basis of these assumptions, the grammar of sentences (3.26, 3.30, 3.32, 3.34) and (3.36) can be investigated. The details of this process are discussed in Chapter 7 of this thesis.[1]

A grammar fitting the above proposal must present the underlying structure of causative sentences in the following way.

(3.39) (= 3.26) John opened the door

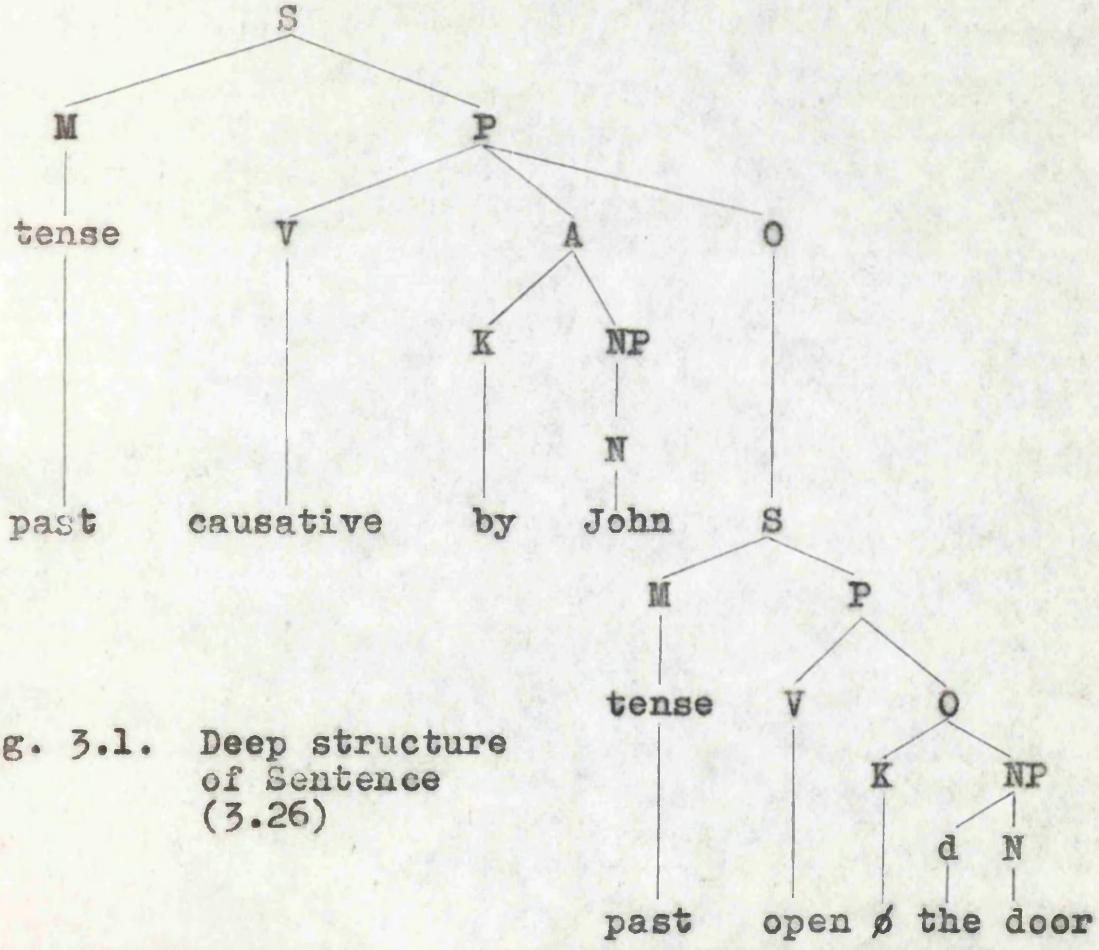

Fig. 3.1. Deep structure of Sentence (3.26)

1. See below pp. 203-238

(3.40) (3.32) Lester jumps the horse.

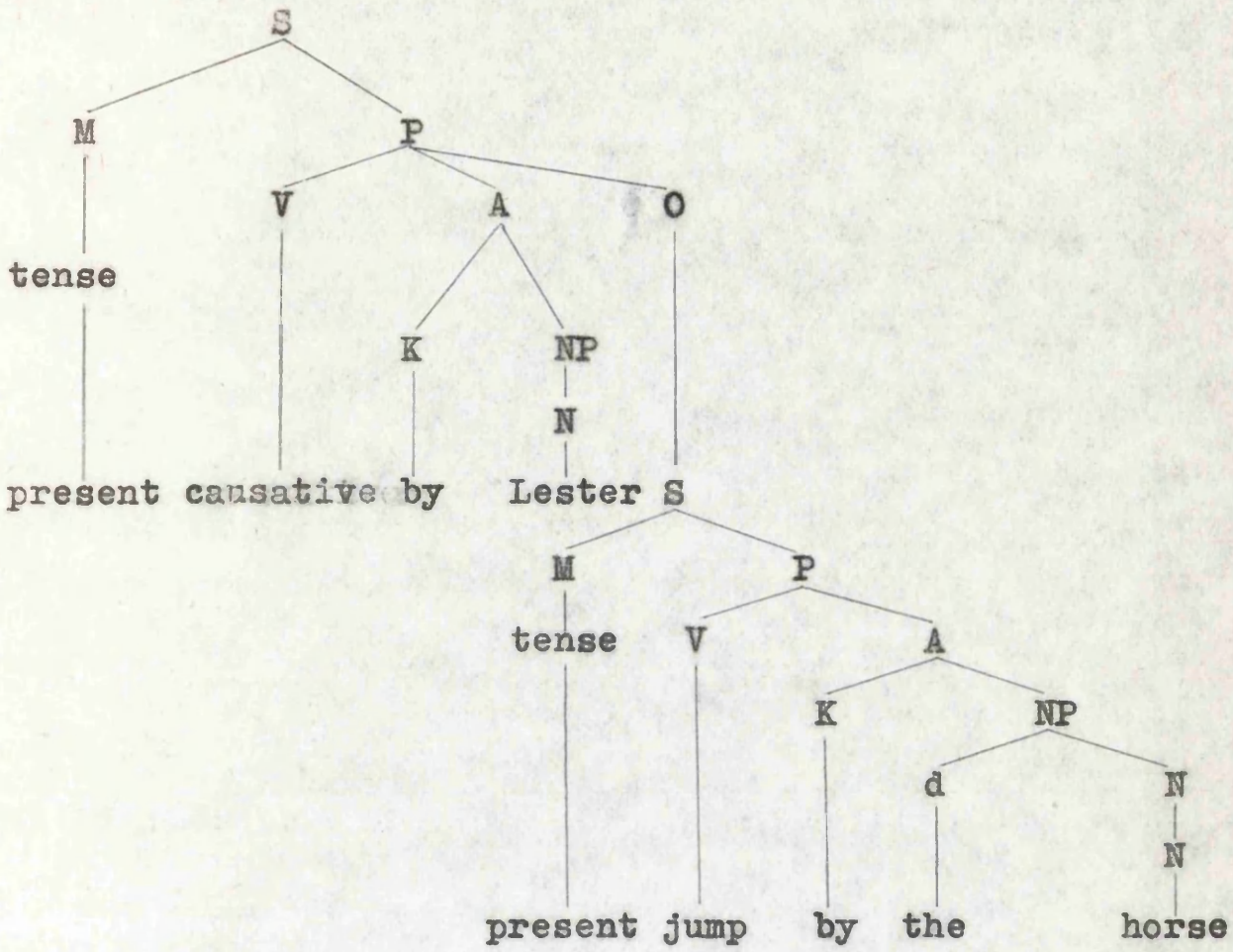

Fig. 3.2. Deep structure of sentence (3.32).

The deep structure of Sentence (3.36) <u>billa laməya aňDəvənəva</u> 'The kidnapper makes the child cry' is represented schematically. The arrangement of the elements of the tree diagram has been adjusted. (This particular adjustment is based upon the word order of Sinhalese sentences).

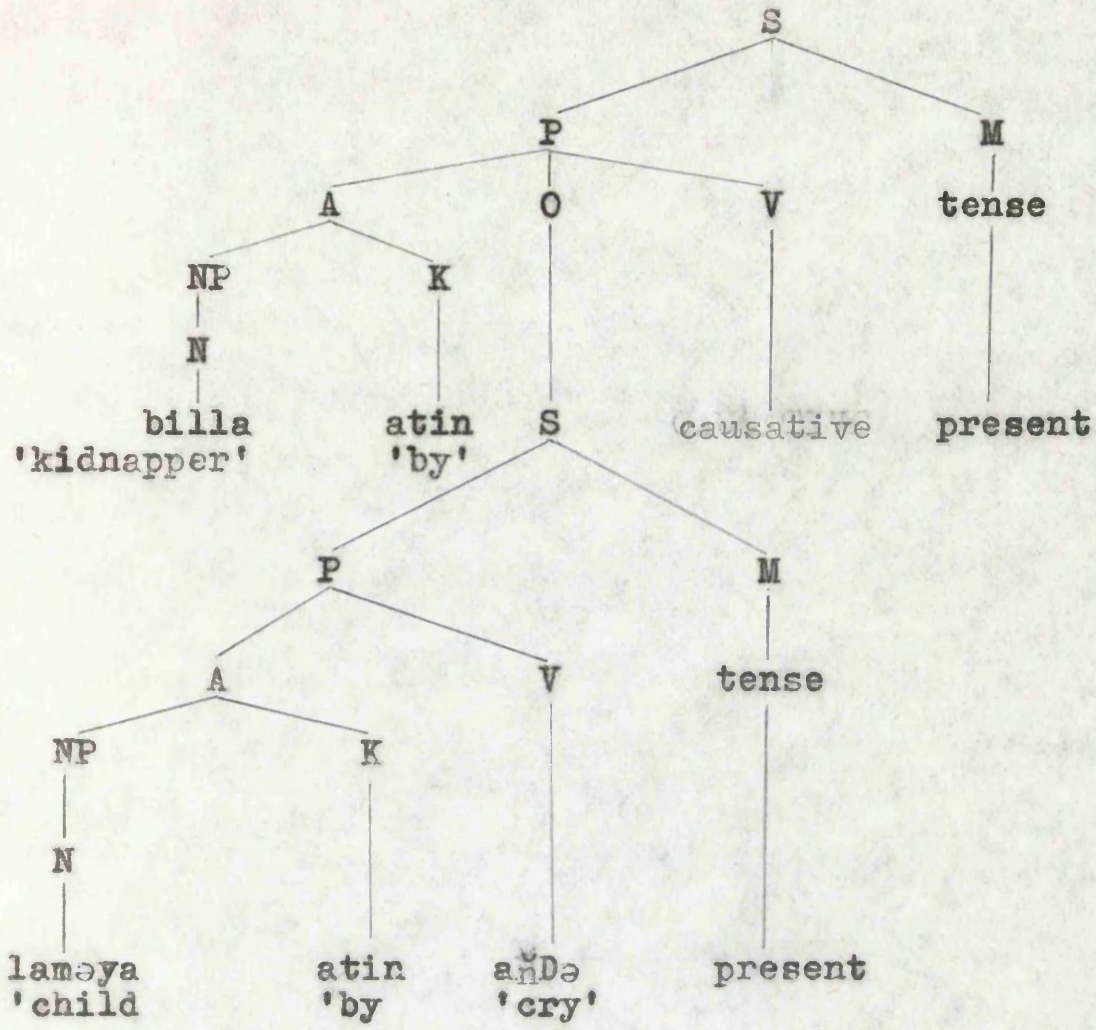

Fig. 3.3. Deep structure of Sentence (3.36)

As a consequence of adopting the proposed method of description the case relations of sentences (3.25 - 3.26) and (3.29 - 3.36) can be represented without any discrepancy. It follows from this that the second members of pairs of sentences are no longer simple sentences.

(3.41) (a) (=3.25) The door opened

(b) [[past] [[open] [the door]]]
S M M P V V O O P S

(3.42) (a) (3.26) John opened the door

(b) [[past] [[causative] [John] [[[past] [[open]
SM M PV V A A OSM M PV V

[the door]]]]]]
O OPSOPS

(3.43) (a) (3.29) The prisoners marched

(b) [[past] [[march] [the prisoners]]]
SM M PV V A APS

(3.44) (a) (3.30) He marched the prisoners

(b) [[past] [[causative] [he] [[[past] [[march]
SM M PV V A A OSM M PV V

[the prisoners]]]]]]
A APSOPS

(3.45) (a) (= 3.31) The horse jumps

(b) [[present] [[jump] [the horse]]]
SM M PV V A APS

(3.46) (a) (=3.32) Lester jumps the horse

(b) [[present] [[causative] [Lester] [[[present]
SM M PV V A A OSM M

[[jump] [the horse]]]]]]
PV V A APSOPS

(3.47) (a) (=3.33) <u>sisyəya duvənəva</u> 'The student runs'.

(b) [[[sisyəya] [duvə]] [present]]
SPA A V VP M MS

(3.48) (a) (=3.34) <u>guruvərəya sisyəya duvəvənəva</u> 'The teacher makes the student run'.

(b) [[[guruvərəya] [[[[sisyəya] [duvə]] [present]]]
SPA A OSPA A V VP M MSO

[causative]] [present]]
V vp m MS

(3.49) (a) (=3.35) laməya aňDənəva 'The child cries.

(b) [[[laməya] [aňDə]] [present]]
SPA A V VP M MS

(3.50) (a) (=3.36) billa laməya aňDəvənəva 'The kidnapper makes the child cry'.

(b) [[[billa] [[[[laməya] [aňDə]] [present]]]
SPA A OSPA A V VP M MSO

[causative]] [present]]
V VP M MS

3.10 Summary

I attempted in this Chapter to give a general description of the principles of case grammar. It should be mentioned that the explanatory power of case grammar is limited as the grammatical rules have been motivated by a selected set of linguistic material.[1] The present framework of case grammar must be considerably modified to include the results of the investigation of a wide variety of data. I shall propose some modifications in the following Chapters.

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1. This has been convincingly pointed out by Dougherty, Ray C., 'Review Article' in Foundation of Language 6 (1970) pp. 506-561. This critique provides strong evidence in support of proposing modifications to case grammar.

CHAPTER 4

CLASSIFICATION OF VERBS AND THE GRAMMAR OF ONE-PLACE VERBS

4.0 Introduction

This Chapter is devoted to the discussion of the syntactic properties of some one-place verbs in Sinhalese.

At the outset, there is a brief discussion of the criteria which are employed to divide verbs into groups - one-place verbs, two-place verbs and three-place verbs - according to the number of noun-phrases that they take.

The frame features for each group of verbs are specified along with the transformational rules that are necessary to convert the deep structures of sentences into their surface structures.

4.1 Classification of Verbs

4.11 In order to construct a satisfactory case grammar, it is necessary to classify verbs according to the number of arguments[1] that they take. Fillmore explicitly notes:

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1. The term 'argument' is used to denote the nominals or noun-phrases that occur with a verb. According to D.T. Langandoen, the classification of verbs (predicates) with respect to the number of arguments that they take is significant in the formulation of base rules. See Langandoen D.T., The Study of Syntax - The Generative-Transformational Approach to the Structure of American English p. 97.

> "As preidcates, words can be described first of all according to the number of 'arguments' that they take".[1]

The importance of such a classification of verbs will become clear as we proceed.

Fillmore says "many verbs are flexible in the number of arguments they take".[2] That is to say, a verb may appear in a sentence with two arguments; and in another sentence the same verb may appear with three or four arguments. In this thesis I do not consider that 'many verbs are flexible in the number of arguments they take' because this type of classification is not 'consistent' enough.

In a 'consistent' classification of verbs, a one-place verb is always a one-place verb, a two-place verb is always a two-place verb and a three-place verb is always a three-place verb. A one-place verb becomes a two-place verb as a result of a grammatical process that I call 'causativization'.[3] The imposition of this kind of restriction upon the classification of verbs helps to eliminate the specification of unacceptable case-frames such as [A + A ——], as I pointed out in the last Chapter.[4]

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1. Fillmore, Charles J., 'Types of Lexical Information in Kiefer F. (ed.) Studies in Syntax and Semantics (1969) D. Reidel Dordrecht, Holland, p. 114.

2. op. cit., p. 114.

3. See Chapter 7 of this thesis

4. See above pp. 73- 86

A sentence may contain a verb and one or more number of arguments. Some of them might be 'optional'. The optional constituents of a sentence can be excluded without affecting the syntactic character of the rest of the sentence. In the present classification these optional constituents are not accounted for.

Noam Chomsky[1] discussed the various degrees of 'cohesion' between the verb and the accompanying prepositional phrases. Those prepositional phrases least closely related to the verb - in Chomsky's terms, VP complements - do not induce a classification of verbs. They are considered to lie outside the verb-phrase. They modify the entire verb-phrase or the entire sentence. They are named as adjuncts; and they occur freely with many types of verbs.

4.12 Conceptually-required arguments and Syntactically-required constituents

The number of arguments that occur with a verb is determined by the action, process or state denoted by the verb in question. For instance the verb gannəva 'buy' denotes an action. In order to fulfil the particular action, a number of rôle types are required; namely a buyer, a seller, an

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1. Chomsky, Noam, Aspects of the Theory of Syntax (1965) M.I.T., pp. 101-106.

object which is sold and a sum of money. They are called conceptually required arguments.

The Syntactically-required constituents operate at the level of syntax. The number of syntactically-required constituents of a verb is not necessarily equivalent to the number of arguments conceptually required by the action denoted by that verb. It is possible to suppress one or more conceptually required arguments at the syntactic level.[1]

Consider the following examples:

(4.1) gunəpaalə velendagen rupiyal tunəkəTə potak gatta

Gunapala bought a book from the (book-)seller for Rs. 3.

(4.2) gunəpaalə velendagen potak gatta

Gunapala bought a book from the (book-)seller.

(4.3) gunəpaalə rupiyal tunəkəTə potak gatta

Gunapala bought a book for Rs. 3.

(4.4) gunəpaalə potak gatta

Gunapala bought a book.

(4.5)* gunəpaalə rupiyal tunəkəTə gatta

* Gunapala bought for Rs. 3.

(4.6)* gunəpaalə velendagen gatta

* Gunapala bought from the (book-)seller.

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1. This problem has been discussed in detail by Fillmore. See 'Types of Lexical Information' in op. cit., pp. 118-120.

(4.7)* gunəpaalə gatta

* Gunapala bought

(4.8)* potak gatta

* bought a book

Constructions (4.5 - 4.8) are not acceptable because they are not syntactically complete. Sentence (4.4) contains a minimum number of arguments; namely, the buyer and the object which is bought. It is a syntactically complete sentence. Therefore, it would seem that the verb gannəva 'buy' syntactically requires two arguments to appear in a syntactically complete sentence. In terms of Cases they are the Agentive element and the Objective element. They are complements. The arguments that are not syntactically required are adjuncts. This investigation shows that there is no one-to-one correspondence between conceptually required arguments of a verb and the syntactically required arguments. The elimination of adjuncts from a sentence presumably does not have any effect on the major grammatical rules such as subjectivalization and objectivalization in Sinhalese. Therefore, the adjuncts of a sentence are optional elements.[1]

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1. However, Sentences such as:
(a) This knife cuts well.
(b) This book sells easily. remain a problem.
The verbs cut and sell syntactically require two arguments; namely an Agentive element and an Objective element. But each of the Sentences (a) and (b) contains one argument.

F/note cont. on next page

I shall make this point more clear in Section 4.13 in the light of the notion of John Lyon's nuclear and extra-nuclear constituents of sentences.

4.13 Nuclear and Extra-nuclear Constituents

John Lyons distinguished between nuclear and extra-nuclear constituents of Sentences. He states:

> "We will say that the subject and predicate together form the nucleus of a sentence. The subject and predicate are therefore nuclear, and adjuncts extra-nuclear, constituents".[1]

In the traditional view, a sentence consists of a number of portions; namely subject, verb, complement and adjunct. John Lyons' predicate contains the verb and the complement.

Footnote 1 contd. from previous page

> Still they are viable sentences. This phenomenon can be treated as an idiosyncratic feature of verbs cut and sell. In the generation of Sentences (a) and (b), the deletion rule is called into play, and it deletes syntactically required arguments. See Fillmore's description of the verb cook in 'The Case for Case', p. 29.

1. Lyons, John, Introduction to Theoretical Linguistics Cambridge (1968), p. 334.

SENTENCE = Subject + VERB + COMPLEMENT + ADJUNCT

PREDICATE

NUCLEUS EXTRA NUCLEUS

The term 'complement' is used to refer to any word or phrase (other than the verb itself) which is an obligatory constituent of the predicate. It is syntactically required to complete the structure of the predicate. The adjunct is an optional constituent,[1] it can be removed from a sentence without affecting the syntactic nature of the rest of the sentence.

A selected number of elements from the conceptually required arguments appear in the nuclear portion of a sentence. They are the elements that are required by a verb for the construction of a syntactically complete sentence. Therefore, I propose that the verbs should be classified with respect to the number of arguments that lie inside the nuclear portion of sentences.

I follow this method of verb classification in this thesis.

4.14 Some Other Restrictions

In the classification of verbs I take only their 'basic' representatives. Now, I clarify 'What is the 'basic'

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1. ibid., p. 345.

representative of a verb'. Consider the following sentences.

(4.9) (a) dorə æ renəva

'The door opens'

(b) siriseenə dorə arinəva

'Sirisena opens the door'

(4.10) (a) meesəyə kæ Denəva

'The table collapsed'

(b) vaDuva meesəyə KaDənəva

'The carpenter breaks the table'

The verbs of each pair of sentences are related to each other in a significant way. Their relationship can be represented thus:[1]

(4.11) arinəva = CAUSE [æ renəva] 'open'

(4.12) kaDənəva = CAUSE [kæDenəva] 'break'

The verb of each (a) sentence above is the 'basic' representative. The verb of each (b) sentence is a 'derived' verb. Then the verbs æ renəva 'open' (in Sentence (4.9) (a)) and kæ Denəva 'collapse/break' (in Sentence (4.10) (a)) are 'genuine' one-place verbs. To include the classification of

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1. See Fillmore, Charles J., Lexical Entries for Verbs in Foundations of Language 4 (1968), p. 377.

derived verbs at the present stage is to complicate the picture unnecessarily. Therefore, I propose to exclude all 'derived' verbs from the classification of verbs with respect to the number of arguments that they accept.

5.15 Verb Groups

Employing the criteria and the restrictions imposed in foregoing sections, verbs in Sinhalese can be divided into three groups; namely

(i) one-place verbs

(ii) two-place verbs

(iii) three-place verbs

The properties of verbs which belong to each group will become clear as we proceed.[1]

5.2 The Rules for Case Markers

It is necessary to postulate a set of rules that specify case markers associated with each case category before starting the grammatical description of Sinhalese sentences.

The phrase structure rules of case grammar indicate that each case category is expanded as a case marker (K) plus

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1. The verbs of motion are not included in this classification. For their description see below Section 6.2 pp.

NP. The case marker (K) occurs with each and every noun-phrase in the deep structure. The K symbol stands for case affixes and post-positions in Sinhalese.

The following list shows the case affixes and post-positions that are accepted by case categories. The case markers of other case categories which do not appear in this list are represented at appropriate places.

CASE CATEGORY	CASE MARKER
Agentive	atin
Instrumental	en
Dative	Tə
Factititive	ǿ
Locative	e
Objective	ǿ

These case markers are presented by the following rule.

(4.13)

$$K \longrightarrow \left\{ \begin{array}{ll} \text{atin} & / \ [NP \ \text{——}]_A \\ \text{en} & / \ [NP \ \text{——}]_I \\ \text{Tə} & / \ [NP \ \text{——}]_D \\ \text{e} & / \ [NP \ \text{——}]_L \\ \text{ø} & / \left\{ \begin{array}{l} [NP \ \text{——}]_F \\ [NP \ \text{——}]_O \end{array} \right\} \end{array} \right\}$$

4.3 The Grammar of One-place Verbs

I shall begin this grammatical description with

genuine one-place verbs because their grammar is least complicated; a fewer number of grammatical rules are required to obtain the surface structure of these sentences.

There are one-place verbs which take Agentive. Objective Dative or Locative cases.

The case category which occurs with a verb is determined by the syntactic-semantic features of the particular verb.

Consider the following verbs:

aňDənəva	'cry'
naTənəva	'dance'
nidənəva	'sleep'
burənəva	'bark'

All these verbs denote actions. They are accepted into the case-frame [A ——]. The Agentive element appears as the surface subject.

The following sentences illustrate this point.

(4.15) daruva aňDənəva

Nn[1] V

'The child cries'.

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1. The symbols N and V stand for the noun and the verb. n (e.g. Nn) indicates the surface case category of the noun. The symbols that are used in this thesis to denote surface case categories are as follows:

F/note contd. on next page

(4.16) næTTuva naTənəva

Nn V

'The dancer dances'.

(4.17) balla burənəva

Nn V

'The dog barks'.

At this point it must be mentioned that Sinhalese the superficial word order of Sinhalese sentences is Subject-Object-Verb. Therefore, Sinhalese is a SOV language. It is debatable whether the elements of the underlying structure of Sinhalese sentences should be arranged in SOV order or in some other way. This is a problem that should be investigated in greater detail. However, the order of elements in the deep structure configurations presented in this thesis is based on SOV order.

The underlying structure of Sentence (4.15) is represented in the following figure.

Footnote 1 contd. from previous page

n = nominative
a = accusative
i = instrumental
d = dative
g = genitive
l = locative

These symbols are used as Na, Ni, Nd etc.

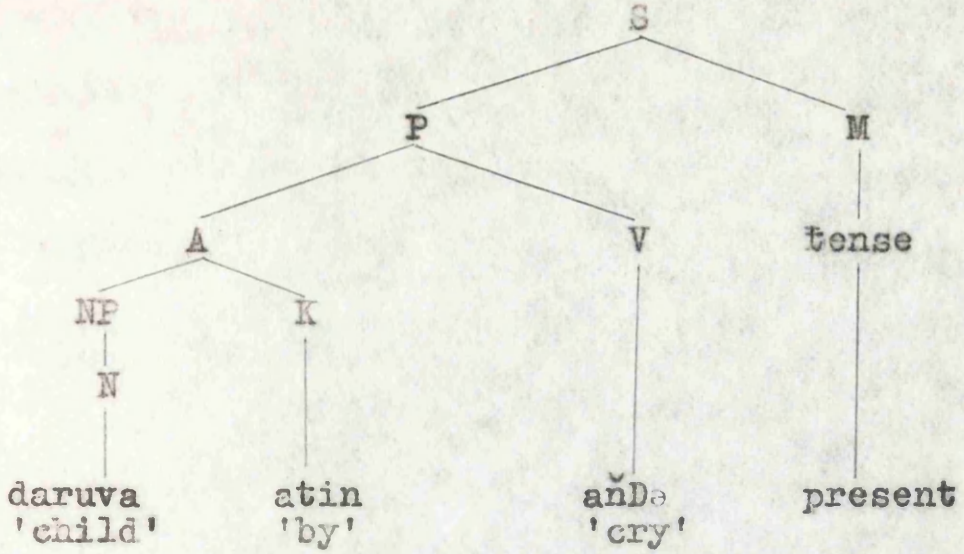

Fig. 4.1. Deep structure of Sentence (4.15)

Then a number of grammatical transformations are called into play in order to convert the deep structure configuration in Figure 4.1 into its surface structure.

Subjectivalization is one of the major rules of case grammar. It has the effect of promoting an argument to the level of the surface subject and moving it to the front of the proposition of Sinhalese sentences. Then the argument moved to the front of the proposition is directly attached to the category symbol S. Now, the surface subject of a sentence can be defined configurationally. 'The noun-phrase which is immediately dominated by the category symbol S of the surface structure of a sentence is called the surface subject'.

The Agentive element of the configuration in Figure 4.1 is selected as the surface subject of Sentence (4.15).

The grammatical rule which moves it to the surface subject position can be formalized as:

(4.18) Subjectivalization

SD. [[[N - K] - V] - M]
SPA A P S

SC. [[[N - K] - V] 1]
SPA A P S

OBL
⟹

[[N - K] - [V] 1]
SA A P P S

The application of Rule (4.18) to the configuration in Figure 4.1 converts it into the construction depicted in Figure 4.2.

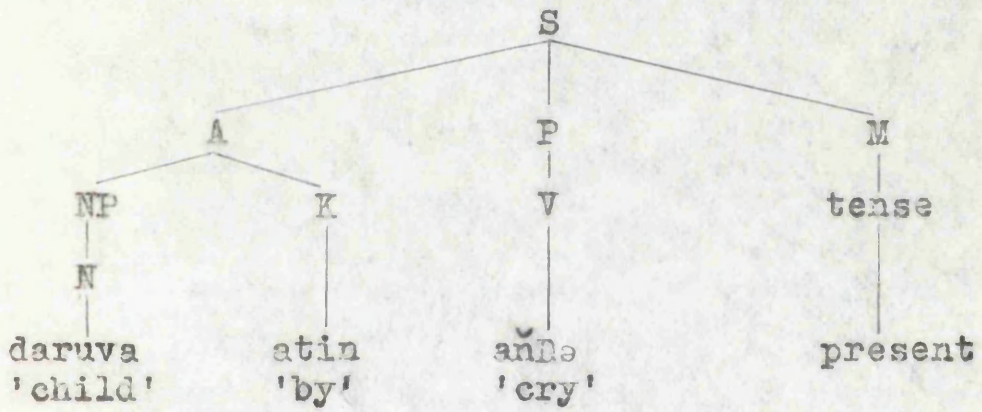

Fig. 4.2. Subjectivalization

At the next stage the case marker (K) of the case category that has been promoted to the status of the surface subject is removed. The K deletion rule is represented as:

(4.19) K - deletion

SD. N - K - V - M
SC. 1 2 3 4

OBL
⟹

1 Ø 3 4

Then the case category symbol of the argument selected as the surface subject is removed. The case category symbol removal is not an ordered rule similar to the subjectivation rule or the deletion rule, but it is a principle of case grammar. All case category symbols which lack a node that terminates in a K element must be removed. This principle removes the circled symbol of the following configuration.

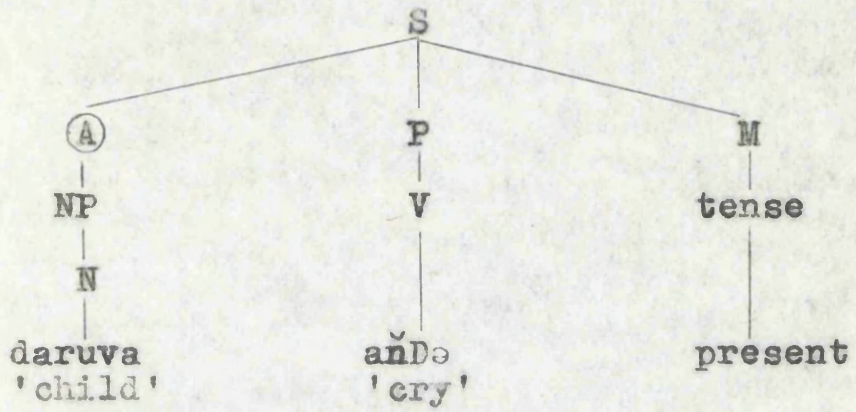

Fig. 4.3

Then the tense marker is incorporated into the main verb. Eventually, the word boundary transformation is called into play. It replaces the concatenation symbol '-' by '#'. ('#' must be interpreted as word boundary) except in the context N - K.

This is an obligatory transformation which is applied after the incorporation of the tense marker into the main verb. (Hereafter, I shall not mention the application of the word boundary transformation except in special cases).

The surface structure of Sentence (4.15) is

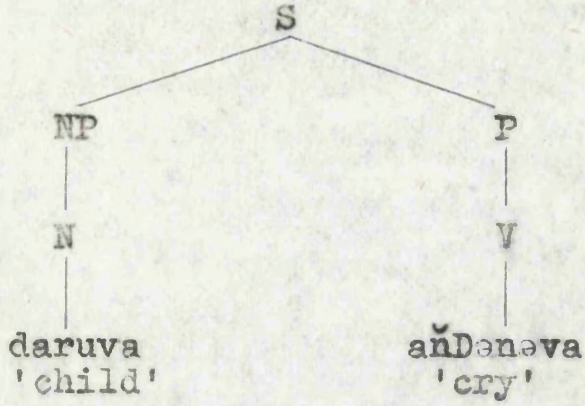

Fig. 4.4. Surface Structure of Sentence (4.15)

The sentences given so far had nouns with the feature [+ singular] as their surface subjects. The following sentence contains a noun with the feature [- singular] as its surface subject.

(4.20) ballo burənəva

Nn V

'Dogs bark'.

The underlying structure of Sentence (4.20) is depicted in Figure 4.5

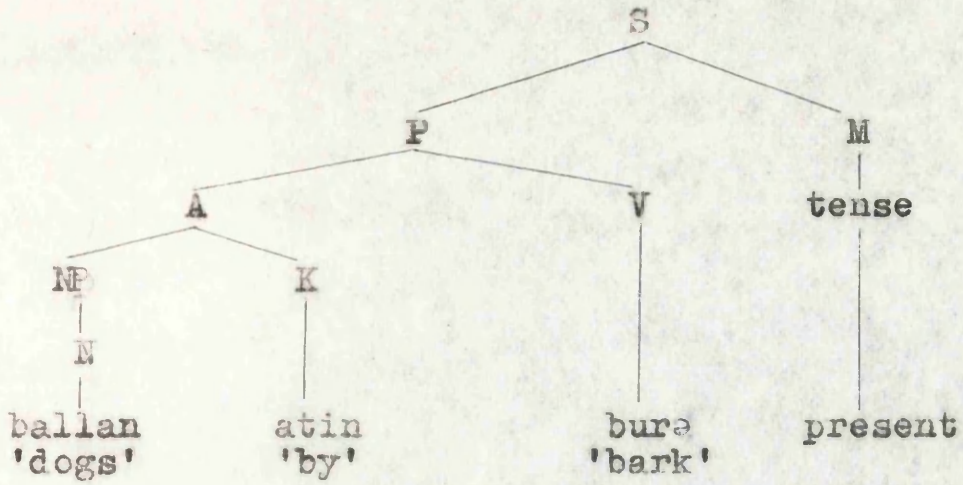

Fig. 4.5. Deep Structure of Sentence (4.20)

The development of the underlying structure represented in Figure 4.5 is shown in the following configuration.

Subjectivalization

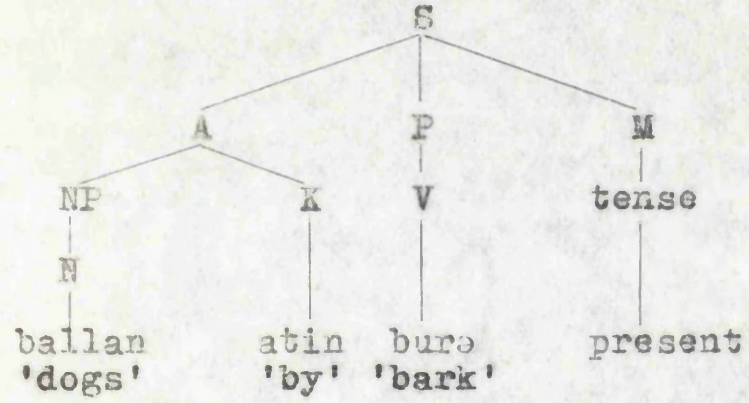

Fig. 4.6

At the next stage the case marker of the A element is deleted. The case category symbol is also removed.

Case-marker Deletion

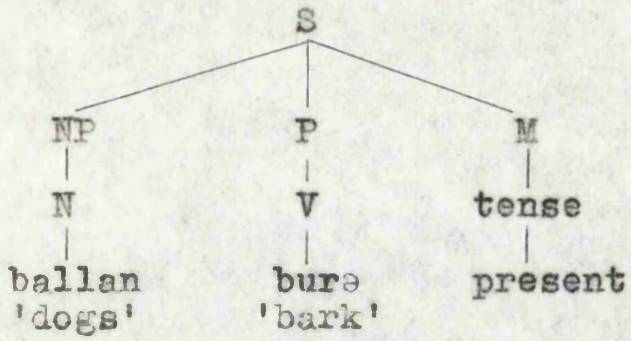

Fig. 4.7.

In order to obtain the surface structure of the construction in Figure 4.7, the surface case assignment rule should be applied to the nominal element that has been chosen as the surface subject. This rule is applied to nouns with the features $\begin{bmatrix} + \text{ ANIMATE} \\ - \text{ SINGULAR} \end{bmatrix}$

(4.21) Surface case Assignment Rule

SD. ballan - burə - present

SC. 1 2 3

$$\Rightarrow^{\text{OBL.}}$$

$$\begin{bmatrix} 1 \\ + \text{ NOMINATIVE} \end{bmatrix} \quad 2 \quad 3$$

Condition: $1 = \begin{bmatrix} + \text{ N} \\ + \text{ animate} \\ - \text{ singular} \end{bmatrix}$

The application of Rule (4.21) to the construction in Figure 4.7 and the incorporation of the tense marker into the main verb yield the surface structure of Sentence (4.20) as shown in Figure 4.8.

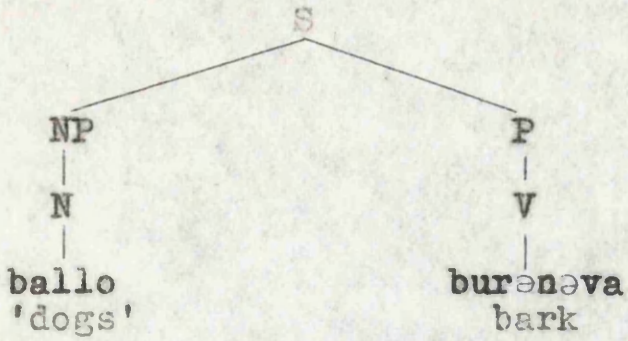

Fig. 4.8. Surface Structure of Sentence (4.20)

4.32 Some nominals hold Objective relationship to verbs in the deep structure. The following list contains some of those verbs.

æ renəva	'open'		
irenəva	'tear'	pæ lenəva	'split'
idenəva	'ripe'	poňgənəva	'soak'
kæ Denəva	'break'	dirənəva	'be delapidated'
galənəva	'flow'	bæ bəlenəva	'shine'

The one-argument sentences with these Verbs which denote processes do not contain agents. The obligatory nominal which occurs with them contains the feature [- animate]. Then the case-frame for these verbs is specified as [O ——]. The subjectivalization rule is applied to the Objective element.

Consider the following examples.

(4.22) dorə æ renəva

Nn V

'The door opens'

(4.23) haňdə bæbələnəva

Nn V

'The moon shines.'

(4.24) puTu kæDənəva

Nn V

'The chairs collapse.'

The underlying structure of Sentence (4.23) and its mapping into the surface structure is represented by means of tree diagrams.

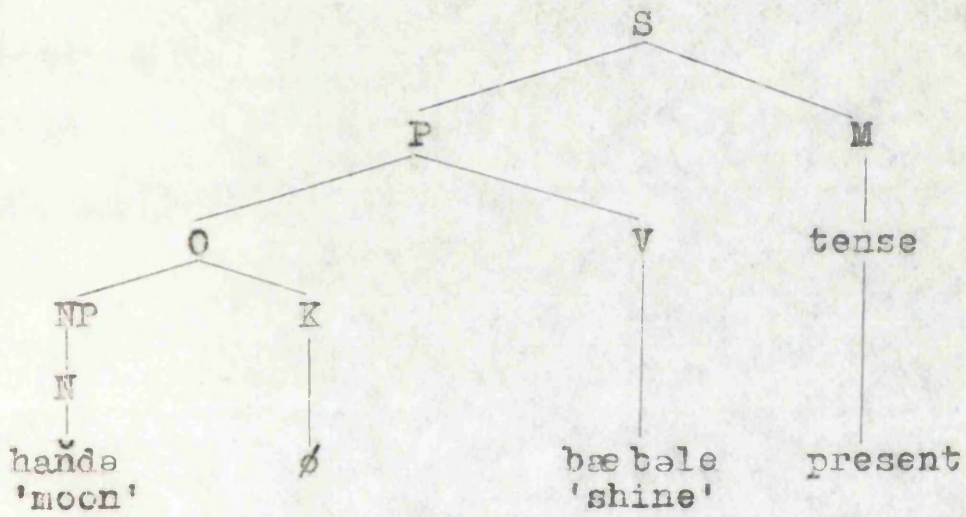

Fig. 4.9. Deep Structure of Sentence (4.23)

The Subjectivalization rule moves the Objective element to the surface subject position and it is directly attached to the category S.

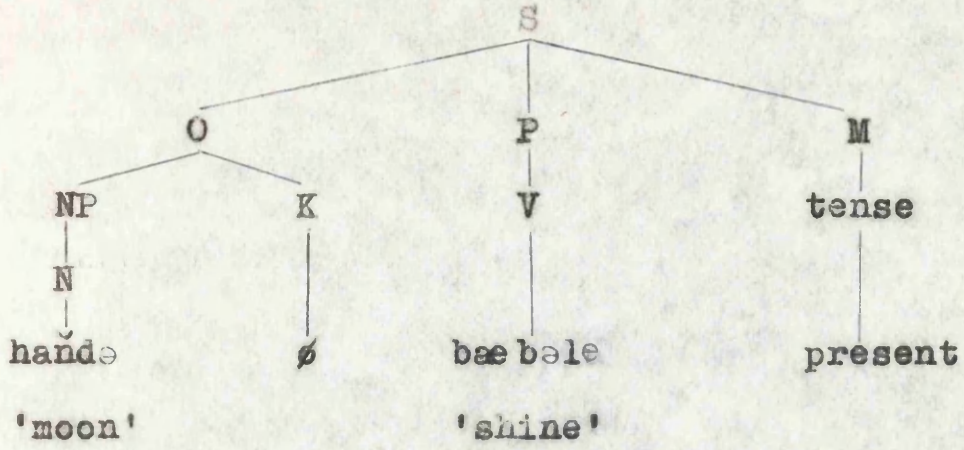

Fig. 4.10. Subjectivalization

The Deletion rule removes the case marker of the case category selected as the surface subject. Then the tense marker is incorporated into the main verb. The surface structure of Sentence (4.23) is as shown in Figure 4.11.

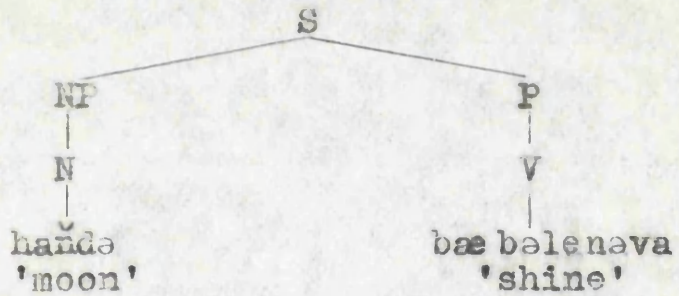

Fig. 4.11. Surface Structure of Sentence (4.23)

4.33 Fillmore has defined the Dative case as:

> "the case of the animate being affected by the state or action identified by the verb".[1]

The obligatory nominal element with the feature [+ animate]

---

1. 'The Case for Case', p. 24.

which occurs with the verbs in the following list is recognized as Dative. These verbs accept [- animate] nouns as well. They are recognized as Objective elements.

piccenəva 'burn'

mæ renəva 'die'

The frame feature associated with these verbs is + [$\left\{\begin{matrix}D\\O\end{matrix}\right\}$ ——].
(The braces indicate the selection of one of the case categories). The following examples contain one-place verbs that take either the Dative or the Objective case.

(4.25) daruva piccenəva (D + V)

Nn V

'The child burns itself'.

(4.26) dara piccenəva (O + V)

Nn V

'The firewood burns'.

(4.27) minissu mæ renəva (D + V)

Nn V

'People die'.

(4.28) pæ læ æ Ti mæ renəva (O + V)

Nn V

'Plants die'.

The result of the process denoted by each verb in above sentences comes towards the animate being or inanimate thing

indicated by the surface subject nominal.[1] It can be represented thus:

(4.29) minissu ← mæ renəva

'people die'

The arrow symbol marks the direction of the result of the process identified by the verb. The nominals which occur with those verbs are assigned either to Dative or to Objective. According to Fillmore, in this context, the Dative element is distinguished from the Objective element by the feature [+ animate].

In a later publication[2] Fillmore uses the term 'Eperiencer' for the case category Dative.

The underlying structure of Sentence (4.27) is as shown in Figure 4.12.

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1. The same phenomenon can be seen in the sentences containing verbs kæ Denəva 'break/collapse', pæ lenəva 'split' and dirənəva 'be dilapidated'. These verbs have been listed in 4.32 on p. 107 above.

2. Fillmore, Charles J., 'Types of Lexical Information' in Kiefer F. (ed.) Studies in Syntax and Semantics (1969) D. Feidel Dordrecht, Holland, p. 116. The case category Experiencer has been defined as:
"Experiencer (E), the entity which receives or accepts or experiences or undergoes the effect of an action (earlier called by me 'Dative')".

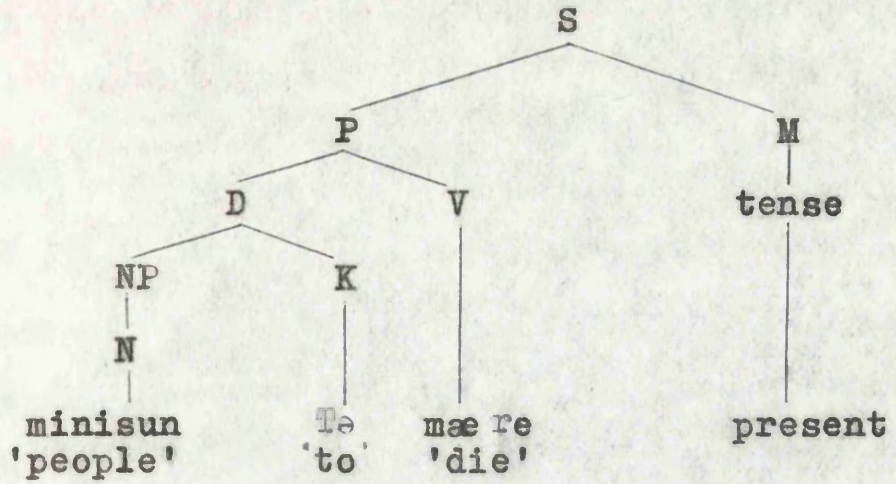

Fig. 4.12. Deep Structure of Sentence (4.27)

Then the Subjectivalization rule is applied to the Dative element. The Deletion rule removes the case marker. The nominal <u>minisun</u> 'people' satisfies the necessary condition for the application of the surface case assignment rule (see p. 106 above. Rule (4.21). The result of the consecutive application of these rules to the configuration in Figure 4.12 is depicted below in Figure 4.13.

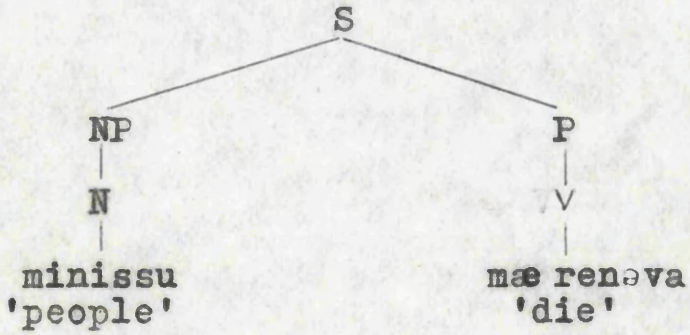

Fig. 4.13. Surface Structure of Sentence (4.27)

4.34 There are some peculiarities associated with the

verb ridenəva 'ache'. Its frame feature is [$\begin{Bmatrix} D \\ O \end{Bmatrix}$ ——]

The nominal which occurs with the verb ridenəva 'ache' is either an animate noun or a noun which denotes a body part. If the nominal contains the [+ animate] feature it is recognized as a Dative element, otherwise it is an Objective element. The Dative element that occurs with this verb does not undergo subjectivalization process.

Consider the following sentence

(4.30) laməyaTə ridenəva

Nd V

'Child-to' 'ache'

'The child experiences pain'.

The nominal element laməyaTə 'child-to' in Sentence (4.30) appears in the dative case-form. It should be asked 'what is the reason for it?' Can we recognize it as the surface subject of Sentence (4.30)? If we recognize the nominal laməyaTə 'child-to' as the surface subject of Sentence (4.30) a Sinhalese grammar will include a statement such as 'the surface subject of Sinhalese sentences appears in the dative case-form in the environment of certain verbs'.

However, such a statement seems to be ad-hoc because case grammar contains a subjectivalization process which has the effect of neutralizing the underlying case relation between the nominal selected as the surface subject and the

verb.[1] This neutralization of the underlying case relation is carried out by the deletion of the underlying case marker of the nominal element selected.

Therefore, I hold the view that Sentence (4.30) is a subjectless sentence.[2] The nominal laməyaTə 'child-to' maintains its underlying case marker because it does not undergo subjectivalization. Then the Dative element laməyaTə 'child-to' is treated as a constituent that appears in the propositional portion of the surface structure of Sentence (4.30).

The deep structure of Sentence (4.30) is represented in Figure 4.14

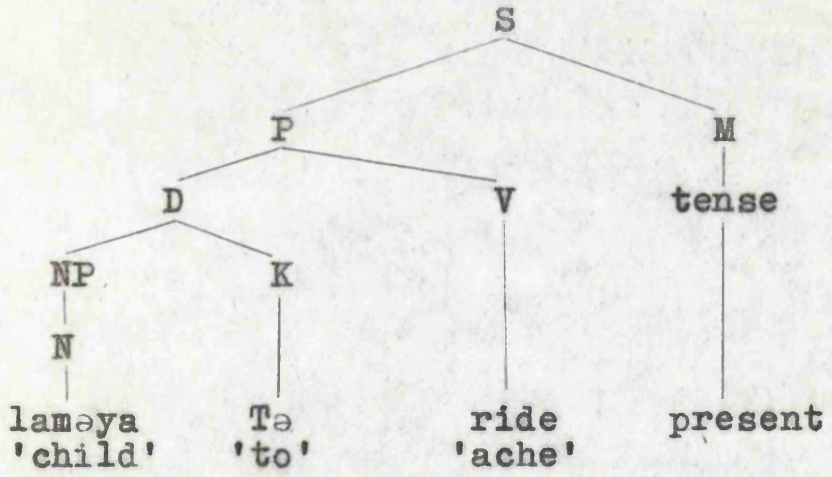

Fig. 4.14. Deep Structure of Sentence (4.30)

The surface structure of Sentence (4.30) is represented in

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1. Fillmore, Charles J., 'The Case for Case', p. 49.

2. See Section 4.36 for some other subjectless sentences.

Figure 4.15.

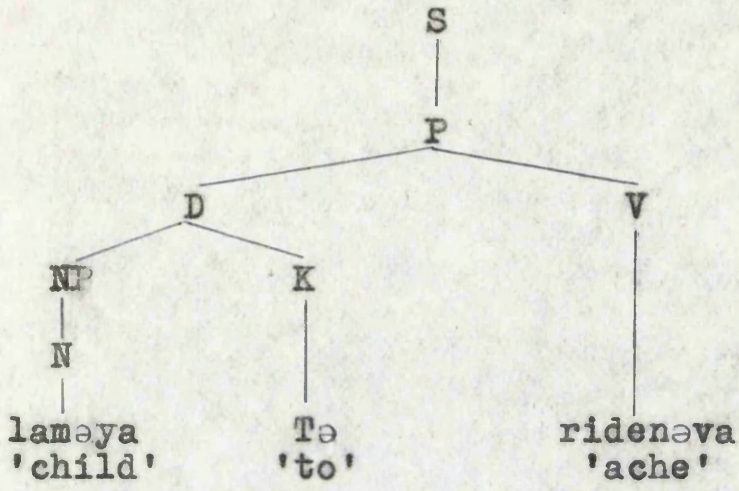

Fig. 4.15. Surface Structure of Sentence (4.30)

The surface realization of Sentence 4.30 is not very remote from its underlying structure.

Now, it should be asked: 'Why the animate noun which occurs with the verb ridenəva 'ache' fails to undergo the subjectivalization rule? Can we distinguish the verbs which do not accept a surface subject from those which accept a surface subject'? It seems very hard to find a substantive answer to the first question. The answer to the latter question is: 'the verbs which do not accept a surface subject cannot be distinguished from those accept a surface subject'. Therefore, the absence of a surface subject is Sentence (4.30) turns out to be an idiosyncratic feature of the verb ridenəva 'ache'. In order to generate grammatical sentences, the idiosyncratic features of lexical items of this kind must be represented in the grammar.

One of the devices of handling the problems of this sort is the subcategorization of lexical items with respect to all grammatical rules. Subjectivalization is a general rule of case grammar. The verb ridenəva "ache" is an exception to this rule. Therefore the verb ridenəva 'ache' should be marked minus for the subjectivalization rule feature.[1]

The verb ridenəva 'ache' in the following sentence appears with a nominal which denotes a body part.

(4.31) mage atə ridenəva

Nn V

'My hand aches'

The noun-phrase mage atə 'my hand' has a sub-structure.[2] It functions as the surface subject of Sentence (4.31).

4.35 Adjectives are treated as a sub-class of verbs. They are a kind of stative verb that does not absorb the tense marker. Therefore, it is possible to specify case-frames for adjectives.

Adjectives denote qualities and properties of

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1. See George Lakoff, Irregularity in Syntax (1970) New York, Holt, Rinehart and Winston Inc., p. 21.

2. The construction mage atə 'my hand' is an inalienable possessive construction. See below Chapter 9, pp.270-274

animate beings and inanimate things. Consider the verbs in the following list. They contain the feature [+ adjectival].

lassəna	'pretty'
usə	'tall'
hoňdə	'good'
narəkə	'bad'
tarunə	'young'

All these verbs except tarunə 'young' accept animate as well as inanimate nouns. The verb tarunə 'young' accepts only animate nouns in Sinhalese. These arguments hold the Objective relation to the above verbs. Therefore the frame feature of the above verbs is [O ——]. The Objective element functions as the surface subject. For instance

(4.32) ranjəni lassəna yi
Nn V
'Ranjani is pretty.'

(4.33) mal lassəna yi
Nn V
'Flowers are pretty.'

Then, a problem arises with regard to the tense marker of Sentences (4.32 - 4.33). Virtually, these sentences do not contain a tense marker, but they are understood as belonging to the present tense. In order to express the past an adverb such as issərə 'before' is inserted. Consider the following

sentences:

(4.34) siriseenə mahata yi

'Sirisena is fat'

(4.35) siriseenə issərə mahatayi

'Sirisena was fat before'

The element issərə 'before' in Sentence (4.35) indicates that the sentence in question reports a property of Sirisena that existed in the past. Sentence (4.34) lacks an element such as issərə 'before'. Therefore it is understood as a present tense sentence. This is a piece of evidence to consider that the present tense is the unmarked tense in Sinhalese.

On the whole, the sentences that containing adjectives as main verbs are tenseless sentences. Their underlying structure representations do not contain a node for the tense marker. Accordingly, the first phrase structure rule of Sinhalese case grammar is revised as:

(4.36) S → P + (M)

On the basis of these assumptions the underlying structure of Sentence (4.32) is depicted in Figure 4.16.

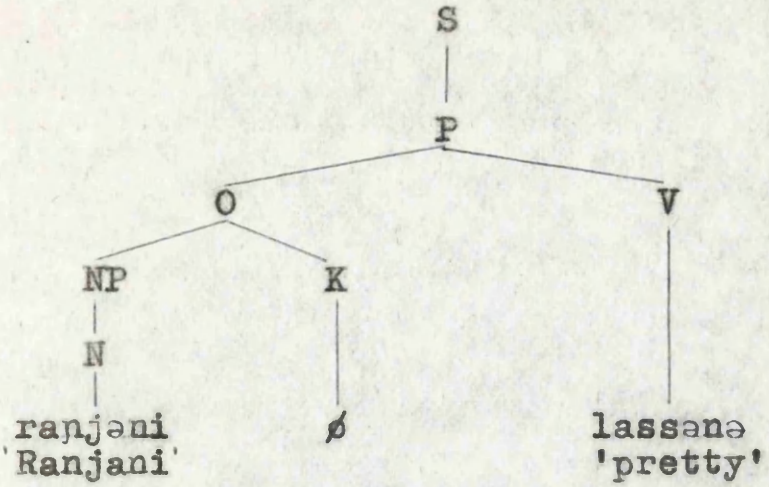

Fig. 4.16. Deep Structure of Sentence (4.32)

The Subjectivalization rule should be applied to the Objective element. Then the surface structure of Sentence (4.32) is as shown in Figure 4.17

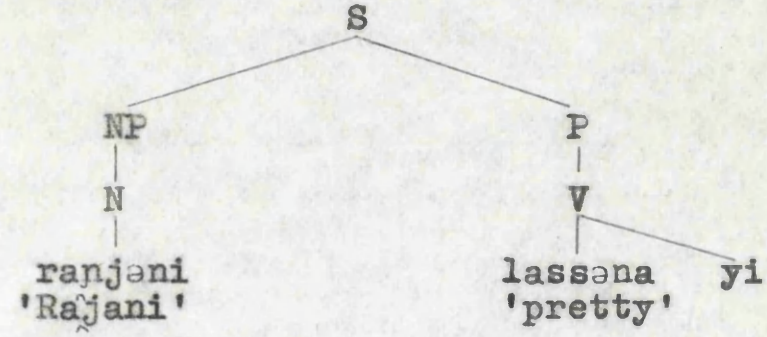

Fig. 4.17. Surface Structure of Sentence (4.32)

The surface structure configuration in diagram 4.17 contains the particle yi. It is semantically empty, and marks the sentence boundary. I treat it as an element which is introduced by a 'spelling rule'.[1]

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1. I borrow the term 'spelling rule' from George Lakoff. (see Lakoff, George Irregularity in Syntax, Appendix A). In the present context this term is used to name a type of rule which introduces formatives into the surface structure of sentences. These formatives are semantically empty.

4.36 The verbs of the following list denote feelings or emotions and they are a kind of stative verb. They can be assigned to a separate group. The lexicon must indicate that these verbs are exceptions to the subjecttivalization rule. The underlying structures in which these verbs appear do not contain a tense marker.

asəniipə	'ill'
kammæli	'lazy'
pissu	'mad'
baDəgini	'hungry'
mahansi	'tired'
səniipə	'recovered' (from illness)

These verbs are accepted into the case-frame [D ——].
Consider the following examples:

(4.37) sisyəyaTə asəniipa yi
Nd V
'the student-to' 'ill'
'The student is ill.'

(4.38) daruvaTə baDəgini yi
Nd V
'the child-to' 'hungry'
'The child is hungry.'

The nominal elements that appear in Sentences (4.37 - 4.38) are not treated as surface subjects.[1] Consequently, the

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1. See Section 4.34 above.

sentences in which there are verbs of this type are subjectless sentences. The underlying structure of Sentence (4.37) is represented in Figure 4.18.

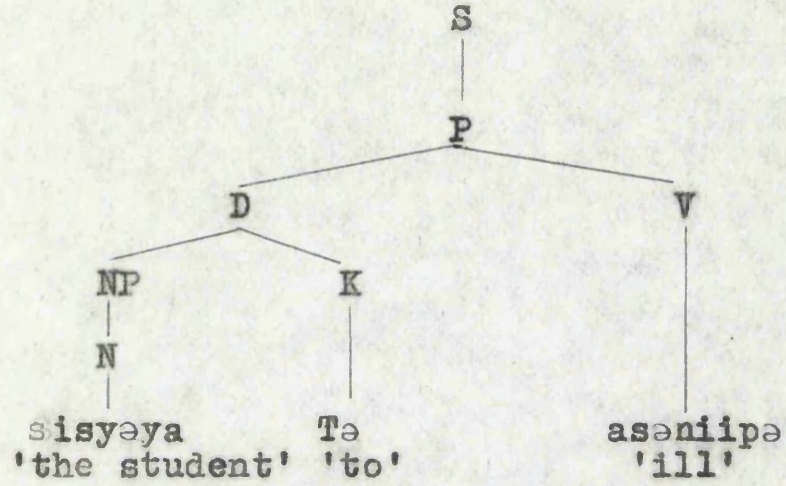

Fig. 4.18. Deep Structure of Sentence (4.37)

The application of the particle spelling rule converts the underlying structure depicted in Figure 4.18 into its surface structure.

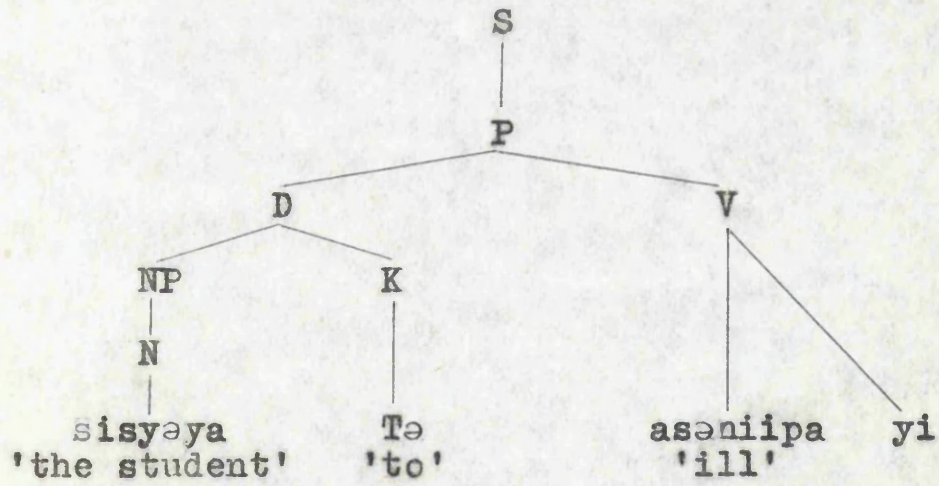

Fig. 4.19. Surface Structure of Sentence (4.37)

4.37 Fillmore noted that the verbs which denote meteoro-

logical conditions accept arguments that can be specified as Locative. Consider the verbs:

usnə 'hot'

unusum 'warm'

siitələ 'cold'

These verbs have the feature [+ adjectival] and they are inserted into the case-frame [L ——]. The Subjectivalization rule is optionally applied.

For instance

(4.39) kaantaarəyə usnayi

Nn V

'The desert is hot'

(4.40) uttəraddrəvəyə siitəlayi

Nn V

'The north-pole is cold'

The nominal elements in Sentences (4.39 - 4.40) appear in the nominative case but they may optionally appear in the locative case-form.

The following sentences show it clearly.

(4.41) kaantaarə usna yi

Nn V

'Deserts are hot'.

(4.42) kaantaarəvələ usna yi

Nl V

'deserts-in' hot

'It is hot in deserts'.

The nominal kaantaarə 'deserts' in Sentence (4.41) is inflected for the nominative case-form but in Sentence (4.42) the nominal kaantaarəvələ 'deserts-in' is inflected for the locative case-form. Therefore I recognize Sentence (4.42) as a subjectless sentence. There is no semantic difference between Sentences (4.41) and (4.42).

The verbs which denote meteorological conditions accept Time elements too. For instance:

(4.43) griismə irtuvə huňgak usna yi

Nn adv V

'summer' 'very' 'hot'

'The summer is very hot'.

(4.44) griismə irtuve huňgak usnayi

Nl adv. V

'summer-in' 'very' 'hot'

'It is very hot in the summer'.

The Time element in Sentence (4.43) functions as the surface subject; in Sentence (4.44) it appears in the locative case-form.

Now, the caseframe for verbs which denote meteoro-

logical conditions should be revised as [$\left\{\begin{matrix}L\\T\end{matrix}\right\}$ ——].

4.4 Summary

I have attempted, in this Chapter, to detect the behaviour of the deep case categories that occur with one-place verbs. The optional case categories occur with these verbs were excluded deliberately. One-place verbs accept case categories:

Agentive

Objective

Dative

Locative and

Time

The Dative case elements that occur with the verbs denoting feelings or emotions fail to undergo the subjectivalization process. The Locative and Time elements are subjectivalized optionally.

It can be generalized that the obligatory argument that occurs with a one-place verb is selected as the surface subject irrespective of its deep case category. The exceptions to this rule must be indicated in the lexicon.

CHAPTER 5

THE GRAMMAR OF TWO-PLACE AND THREE-PLACE VERBS

5.0 Introduction

The grammar of two-place verbs and three-place verbs is complex as compared with the grammar of one-place verbs because of the subject choice hierarchy and the number of transformational rules involved. Furthermore some two-place verbs and three-place verbs allow a surface object.

Again, some two-place verbs and all three-place verbs offer a choice of subject.

In the specification of case-frames for two-place verbs and three-place verbs, the possible combinations of various case categories are represented. In each case, the case elements that appear as the surface subject and the surface object are specified.

5.1 Preliminaries

5.11 Choice of Subject

In the grammatical description of sentences containing more than one case category, a subject choice rule must be postulated. Fillmore has mentioned two types of

subject choice - namely 'normal' and 'non-normal' subject choice.[1] These terms correspond to 'active' and 'passive' in the traditional grammatical theory. The active sentences result from the 'normal' choice of subject while passive sentences result from the 'non-normal' choice of subject.

The 'normal' choice of subject - unmarked subject - is determined by the hierarchy of case types. According to Fillmore's view, the 'non-normal' choice of subject is possible as long as it is registered in the verb. He states:

> "This registering of a 'non-normal' subject takes place via the association of the feature [+ passive] with the verb".[2]

The facts that associated with the subject choice hierarchy will become clear as we proceed.

5.12 Objectivalization

Case grammar defines the surface object of a sentence in terms of pure relations. The nominal element that is immediately dominated by the Proposition is called the surface

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1. The majority of sentences in the spoken language are 'active' sentences. The number of 'passive' sentences is limited. Therefore, it is reasonable to treat 'active' sentences as members representing the 'normal' state of sentences. The choice of surface subject of active sentences is 'normal'. The 'non-normal' choice of surface subject is associated with the 'passive' sentences. The normal/non-normal notion is based upon the statistical criterion.

2. 'The Case for Case', p. 37.

object. The process of selecting an element out of the underlying arguments to appear as the surface object and making necessary modifications in its form is known as objectivalization.

In this process, as in subjectivalization, the case category symbol and the case marker - K constituent - are deleted. Then the resulting noun-phrase is directly subjoined to the propositional constituent of the sentence.

The objectivalization process, too, has the effect of neutralizing the underlying case distinction. The surface object appears in the accusative case-form.

5.13 Deletion of Arguments

The arguments that lie inside the nuclear portion of a sentence are inherent in the meaning of the verb of that sentence and they are syntactically required constituents. Nevertheless, there is a possibility of deleting some syntactically required arguments. For instance consider the following sentences.

(5.1) (a) lamayi bat kanəva

Nn Na V

'children' 'rice' 'eat'

'The children eat rice'.

(b) lamayi kanəva

Nn V

'The children eat'.

(5.2) (a) sisyəyo pot kiyəvənəva

Nn Na V

'students' 'books' 'read'

'Students read books'

(b) sisyəyo kiyəvənəva

Nn V

'Students read'

The relation between the (a) and (b) sentences of each paradigm is obvious. Each (b) sentence lacks a surface object, but they are viable sentences. The verbs kanəva 'eat' and kiyəvənəva 'read' must accept (at least) two arguments - namely: Agentive and Objective - when they occur in the underlying structures of sentences. Therefore these verbs must be specified as 'genuine' two-place verbs.

The (a) and (b) sentences in paradigms (5.1) and (5.2) have similar underlying structures. But the Objective elements of the underlying structure of each (b) sentence does not dominate an NP node that ends in material on which the phonological rules operate. Consequently the (a) and (b) sentences in paradigms (5.1) and (5.2) lack surface objects.

This phenomenon is defined as the deletion of arguments.[1]

5.2 Two-place Verbs

5.21 The nuclear portion of sentences in which one of the following verbs occurs contains the Agentive and Objective arguments. Therefore the case-frame for the verbs in the following list can be specified as [A + O ——].

ahanəva	'listen'	paagənəva	'trample'
æhiňdinəva	'pick'	balənəva	'look/watch'
urənəva	'imbibe'	bonəva	'drink'
kapənəva	'cut'	soyənəva	'seek'
kanəva	'eat'	kirənəva	'weigh'

All these verbs accept a surface subject and a surface object whenever they appear in the surface structure of sentences. Their occurrence in sentences is exemplified by the following examples:

(5.3) minissu gas kapənəva

Nn Na V

'men' 'trees' 'cut'

'The men cut trees'.

(5.4) gavəyo tanəkolə kanəva

Nn Na V

'cows' 'grass' 'eat'

'Cows eat grass'.

---

1. See above Chapter 4 Sections 4.11 and 4.12 and Charles J. Fillmore 'The Case for Case', p. 29.

(5.5) lamayi pæ læ æ Ti paagənəva

Nn Na V

'children' 'plants' 'trample down'

'The children are trampling down the plants'.

The underlying structures of Sentences (5.3) - (5.5) are identical up to their lexical insertion. Sentence (5.3) has the deep structure diagrammed in Figure 5.1.

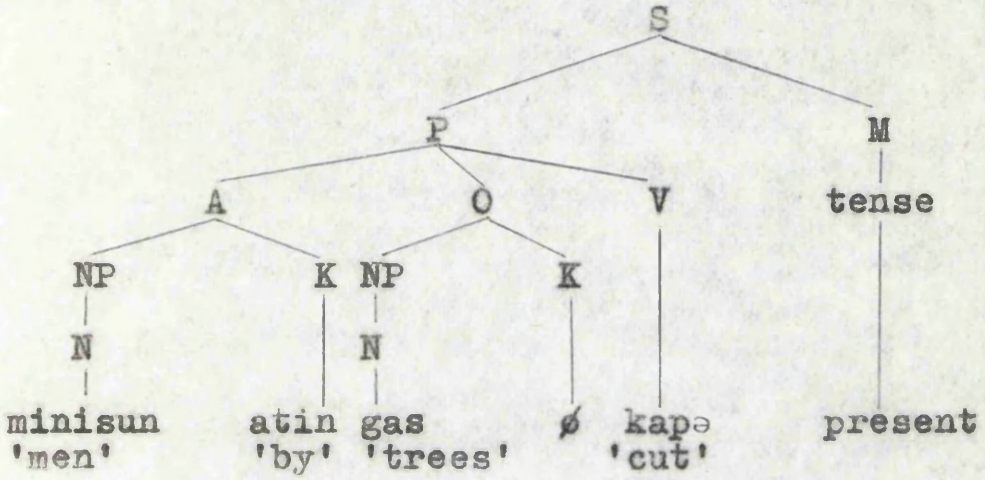

Fig. 51. Deep Structure of Sentence (5.3)

The underlying structure depicted in Figure 5.1 offers a choice of subject. In the 'normal' or 'unmarked' choice of subject the subjectivalization rule is applied to the Agentive element. It moves the Agentive element from the propositional constituent and directly attaches it to the highest category symbol - S. The constituents of Sentence (5.3) can be depicted as in Figure 5.2 at this intermediate stage.

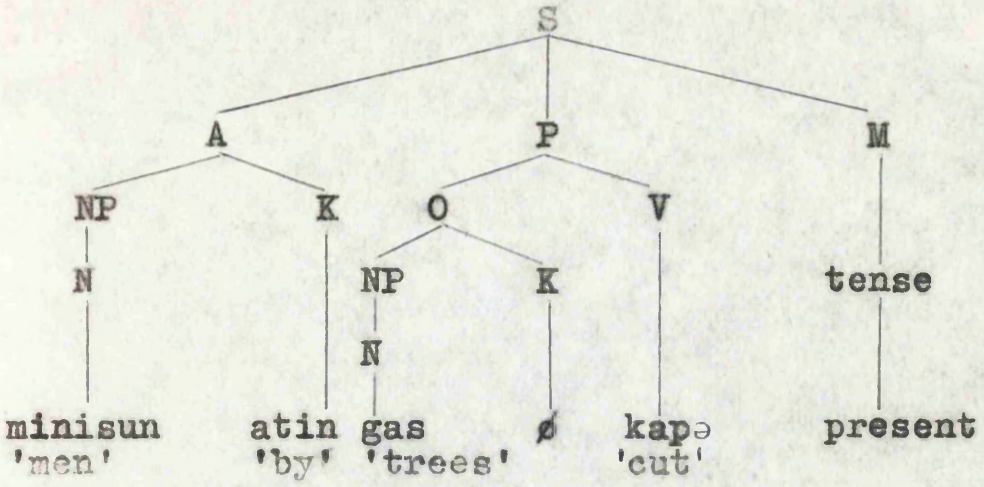

Fig. 5.2. Subjectivalization

At the next stage the case category symbol A and the case marker are removed. The surface case assignment rule changes the resulted noun-phrase into the nominative case-form. The following tree diagram shows Sentence (5.3) at this stage.

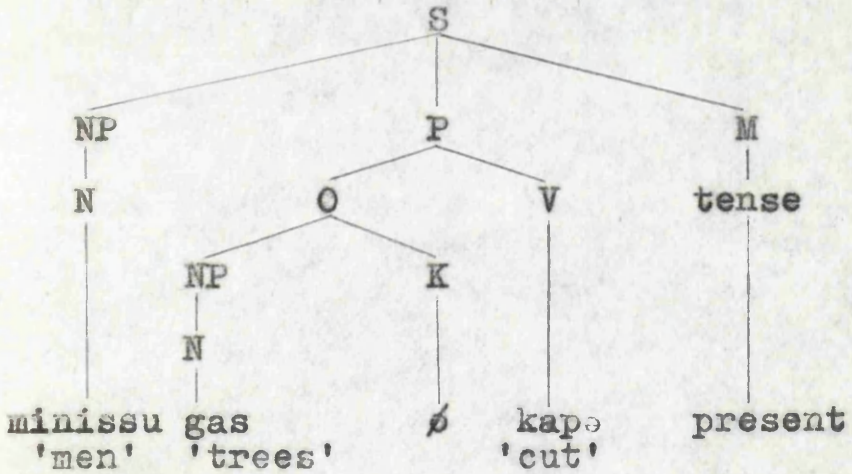

Fig. 5.3. Deletion of Case marker and Surface Case-form assignment

Then the objectivalization rule is applied. The

Objective element is selected as the surface object. The case category symbol O and the case marker are deleted to give the configuration in Figure 5.4.

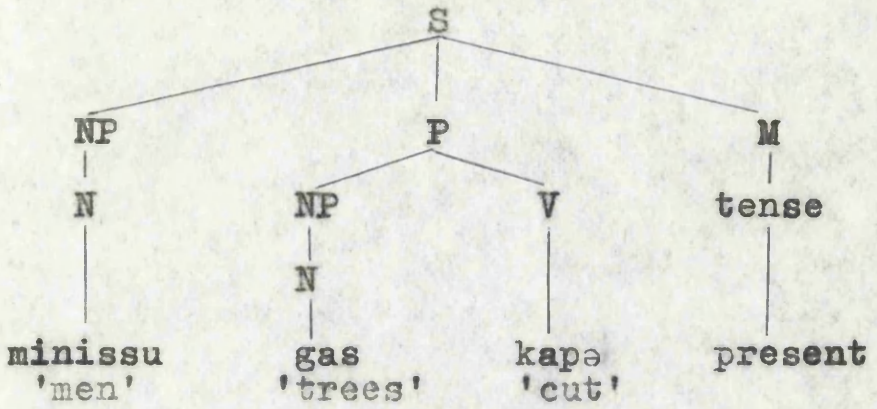

Fig. 5.4. Objectivalization

The surface structure of Sentence (5.3) is depicted in Figure 5.5 after the incorporation of the tense element into the verb.

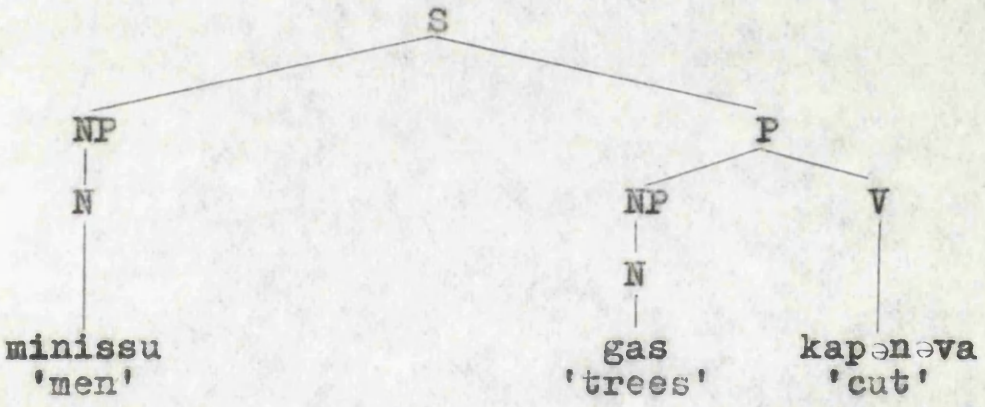

Fig. 5.5. Surface Structure of Sentence (5.3)

5.22 The verbs in the following list are accepted into the case-frame [A + F ——]

<u>aňdinəva</u>	'draw'
<u>mavənəva</u>	'create'

hadənəva 'make'/'build'

The symbol F in the case-frame [A + F ——] stands for the Factitive case. Fillmore defined the Factitive case as:

> "Factitive (F), the case of the object or being resulting from the action or state identified by the verb, or understood as a part of the meaning of the verb".[1]

Consider the following sentences:

(5.6) citrəsilpiyo pintuurə aňdinəva

Nn Na V

'artists' 'pictures' 'draw'

'Artists draw pictures'

(5.7) vaDuvo meesə hadənəva

Nn Na V

'carpenters' 'tables' 'make'

'The carpenters make tables'.

The objects denoted by the nominals pintuurə 'pictures' and meesə 'tables' in Sentences (5.6) - (5.7) come into existence as the result of the actions identified by the verbs aňdinəva 'draw' and hadənəva 'make'. Consequently I identify the nominals pintuurə 'pictures' and meesə 'tables' as elements holding the Factitive relationship to the verbs in Sentences (5.6) - (5.7).

The underlying structures of Sentences (5.6) - (5.7) are identical until they reach their terminal strings. The

1.'The Case for Case'p.25

deep structure of Sentence (5.6) is depicted in Figure 5.6.

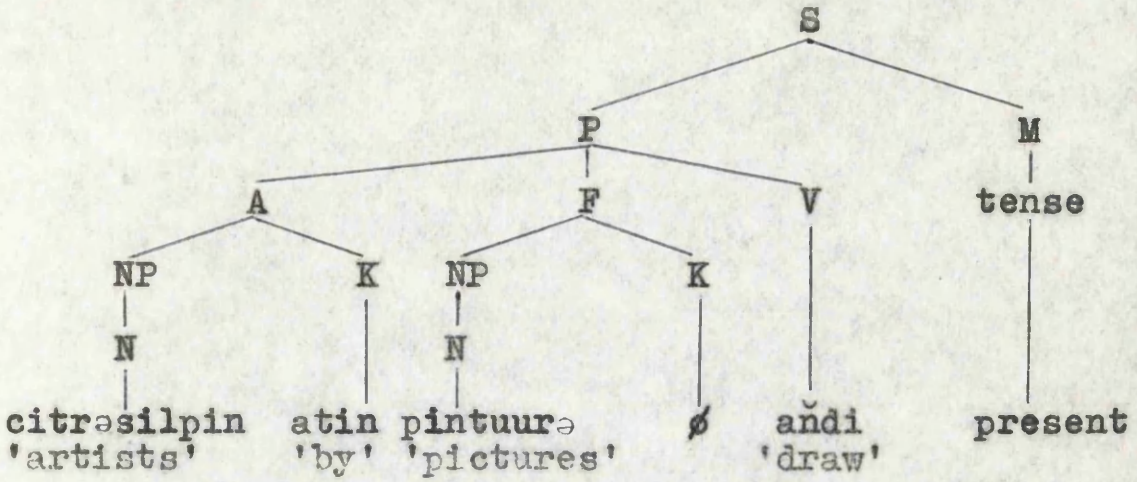

Fig.5.6. Deep Structure of Sentence (5.6)

In the 'normal' or 'unmarked' choice of subject, the subjectivalization rule is applied to the Agentive element. The objectivalization rule is applied to the Factitive element.

The surface structure of Sentence (5.6) is as shown in the following configuration.

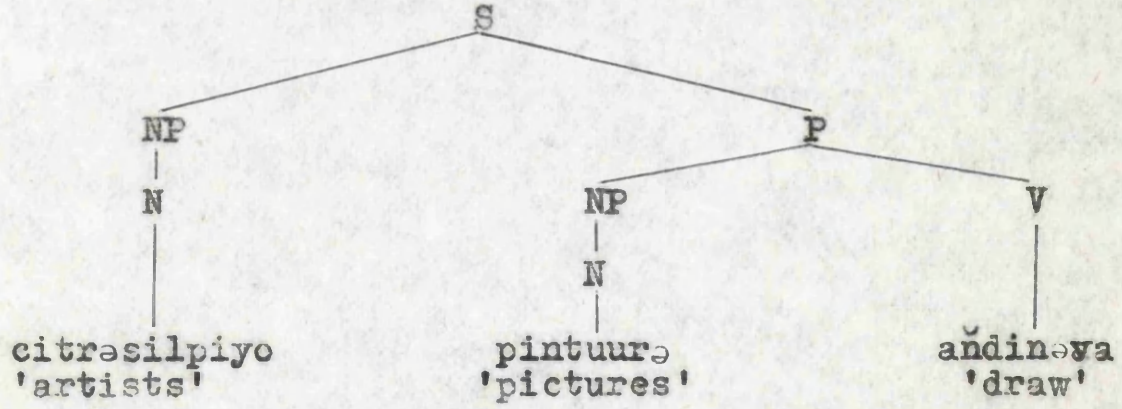

Fig.5.7. Surface Structure of Sentence (5.6)

5.23 The verbs in the following list are accepted into

the case-frame [A + D ——].

paagənəva	'suppress'
maDinəva	'put down'
suura kanəva	'exploit'

The Agentive argument is selected as the surface subject in normal sentences. The Dative element appears as the surface object.

Consider the following sentences:

(5.8) danəpətiyo dilindan paagənəva

Nn Na V

'rich(men) 'poor (men)' 'suppress'

'The rich suppress the poor'.

(5.9) heevaayo kærəlikaruran maDinəva

Nn Na V

'soldiers' 'rebels' 'put down'

'The soldiers put down the rebels'.

(5.10) swaamiyo seevəkəyan suurakanəva

Nn Na V

'employers' 'employees' 'exploit'

'The employers exploit the employees'.

The underlying structure of Sentence (5.8) is represented in Figure 5.8.

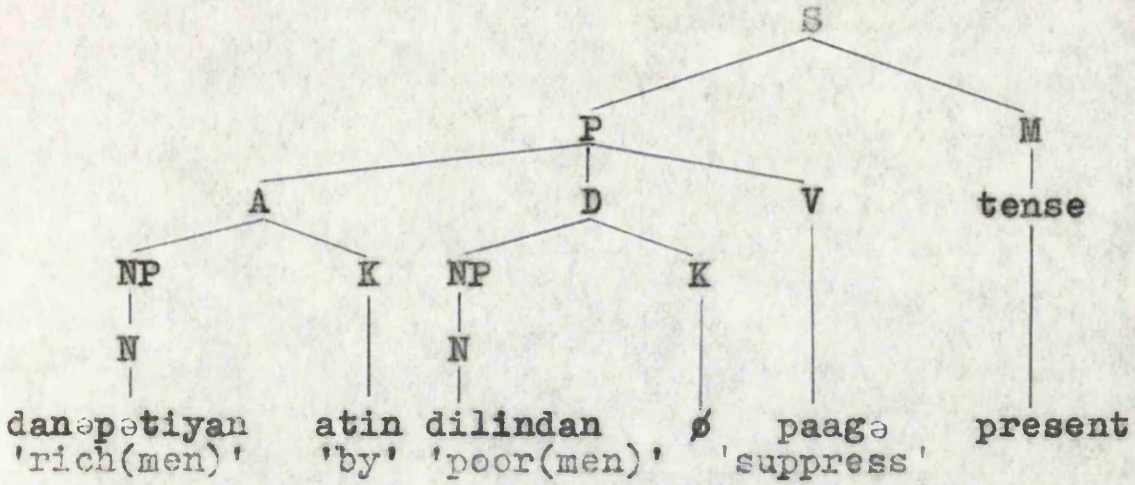

Fig. 5.8. Deep Structure of Sentence (5.8)

In order to convert the structure in Figure 5.8 into its surface astructure the following transformational rules should be applied to the selected elements.

A. (i) The subjectivalization rule (It should be applied to the Agentive element)

(ii) The case marker deletion and the category symbol deletion

(iii) The surface case-form assingment rule.

B. (i) The objectivalization rule is applied to the Dative element. (The case marker and the category symbol D are removed).

C. The incorporation of the tense marker into the verb.

The consecutive application of these rules to the configuration in Figure 5.8 yields the following result which is the surface structure of Sentence (5.8).

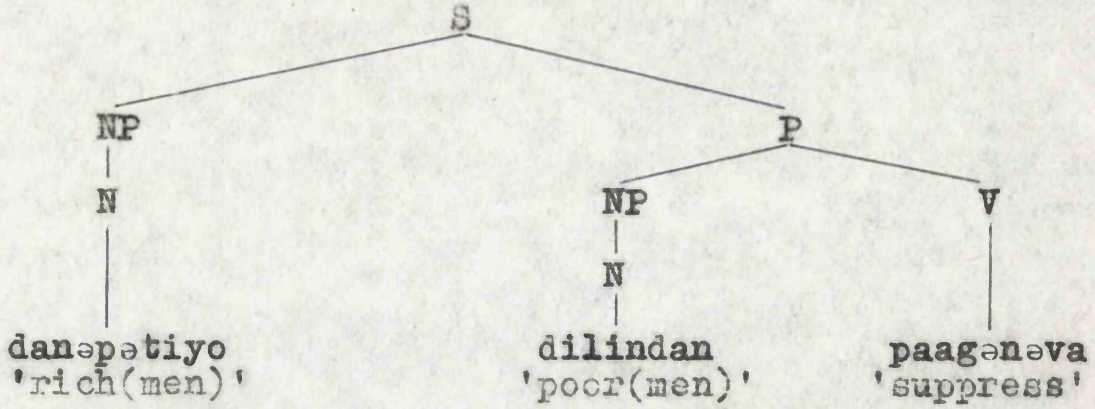

Fig. 5.9. Surface Structure of Sentence (5.8)

The underlying syntactic relations between the constituents in Sentence (5.9) and in Sentence (5.10) are similar to those of in Sentence (5.8). All grammatical rules which were applied to the underlying structure of Sentence (5.8) must be applied to the underlying structures of Sentences (5.9) - (5.10) to convert them into their surface structures.

5.24 Passivization

5.241 The 'non-normal' choice of subject is called passivization. It is the 'marked' subject choice. It seems that those sentences containing surface subjects and surface objects (in the 'normal' choice of subject) have corresponding passive sentences. The noun-phrase that will appear as the surface object in sentences containing unmarked subject choice is selected as the surface subject of sentences containing marked subject choice.

5.242 Necessary Conditions for Passivization

The sentences which undergo passivization should have more than one argument in their underlying structures. At least two of them must lie in the nuclear portion of the sentence, and one of them must be an Agentive element. For instance consider the following case-frame.

(5.11) [A + C_a + ... + ——]

(Ca = C, D, F)

This case-frame automatically indicates that in the 'unmarked' choice of subject, the subjectivalization rule is applied to the Agentive element while the objectivalization rule is applied to the Ca element, and it satisfies necessary conditions for passivization. Suppose that case-frame (5.11) does not contain an Agentive element, then it does not satisfy necessary conditions for passivization. The sentences containing non-volitional verbs do not have passive versions because their underlying structures do not contain an Agentive element.[1]

5.243 Passive Sentences

The sentences which were described so far contain the 'normal' choice of subject. The following sentences

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1. See below Chapter 8, pp 239-258

contain 'non-normal' choice of subject.

(5.12) gas minisun atin kæ penəva

Nn N pp V

'trees' 'men' 'by' 'cut'

'Trees are cut by the men'.

(5.13) pæ læ æ Ti laməyin atin pæ æ genəva

Nn N pp V

'plants' 'children' 'by' 'get trampled down'

'The plants get trampled down by the children'.

(5.14) pintuurə cittrəsilpin atin æ ňdenəva

Nn N pp V

'pictures' 'artists' 'by' 'are drawn'

'Pictures are drawn by artists'.

(5.15) meesə vaDuvan atin hæ Denəva

Nn N pp V

'tables' 'carpenters' 'by' 'are made'

'Tables are made by carpenters'.

The verbs kapənəva 'cut' and paagənəva 'trample down' in Sentences (5.12) - (5.13) are accepted into the case-frame [A + O ——]. The verbs aňdinəva 'draw' and hadənəva 'make' in Sentences (5.14) - (5.15) are accepted into [A + F——] They expect surface subjects and surface objects in 'normal' sentences. It follows from this that the underlying structures associated with Sentences (5.12) - (5.15) satisfy necessary

conditions for passivization.

The underlying structures of sentences (5.12) - (5.13) are identical with those of Sentences (5.3) and (5.5) above. In other words, Sentences (5.12) - (5.13) are full paraphrases of Sentences (5.3) and (5.5). The difference relies upon the choice of the surface subject. Sentences (5.3) and (5.5) have chosen the Agentive element as their surface subjects while Sentences (5.12) - (5.13) have chosen the Objective elements as their surface subjects.

The underlying structtres of Sentences (5.14) - (5.15) are identical with those of Sentence (5.6) - (5.7). Their difference also relies upon the choice of surface subject.

The deep structure configuration of Sentence (5.12) is repeated here to facilitate the discussion.

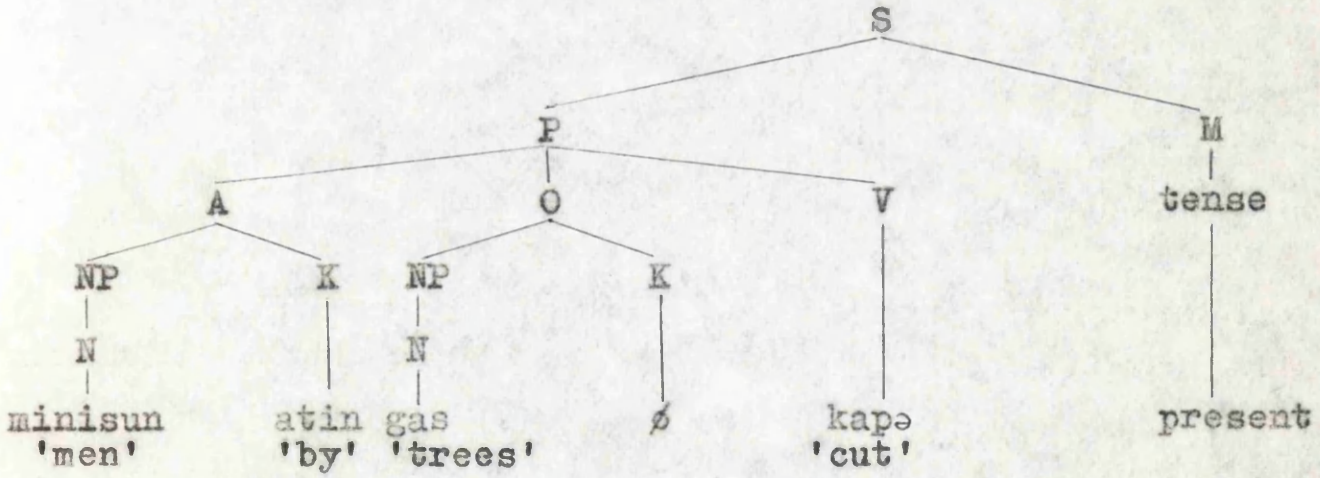

Fig. 5.12. Deep Structure of Sentence (5.3) and (5.12)

In the 'non-normal' choice of subject, the subjectivalization rule is applied to the Objective element. It has the effect of moving the O element from the Propositional constituent. Then it is directly subjoined to the category symbol S. The following configuration shows the surface subject movement.

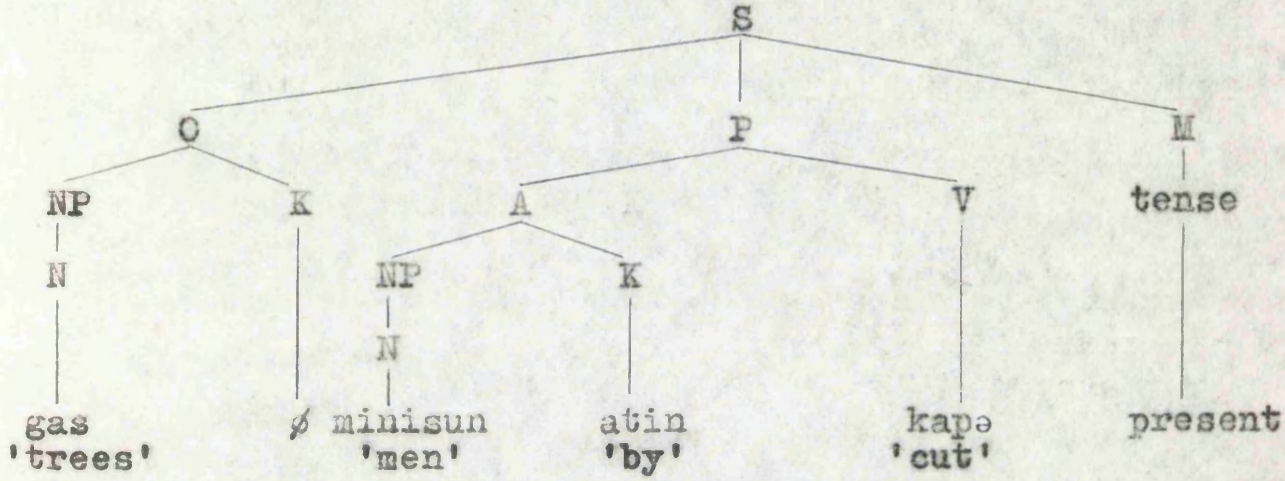

Fig. 5.13. Subjectivalization

At the next stage the case category symbol O and the case marker are deleted to give the figure in the following diagram.

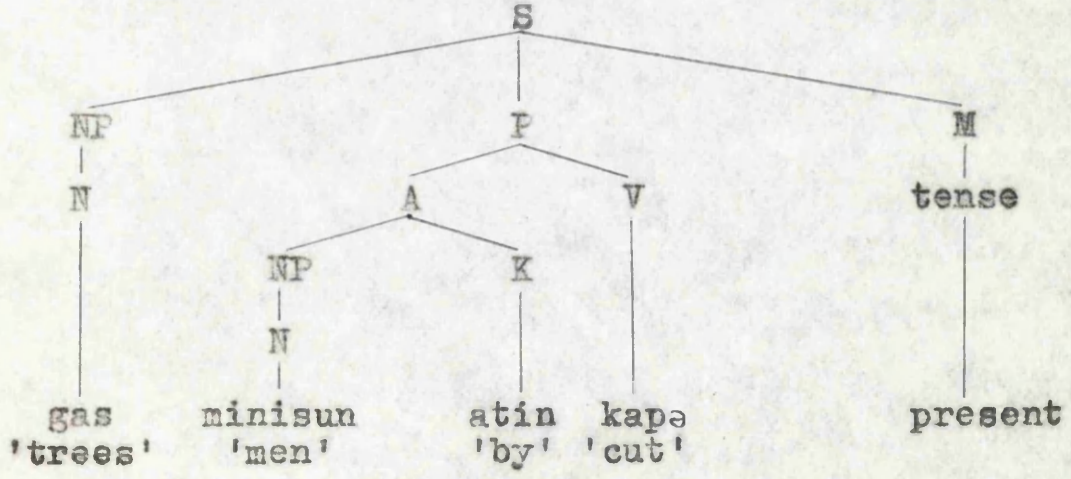

Fig. 5.14. Deletion of the case category symbol and the case marker

The 'non-normal' choice of subject demands the change of the phonological realization of the verb. The particular change is transformationally introduced into the verb by registering the feature [+ passive] in it. The rule that introduces this feature into the verb can be formulated in the following way.

(5.16) The Passive feature Introduction rule.

SD.	N	-	N	-	K	-	V	-	M
SC.	1		2		3		4		5
	1		2		3		[4 + passive]		5

OBL ⟹

The result of the application of this rule to the structure in Figure 5.14 is represented in the following diagram.

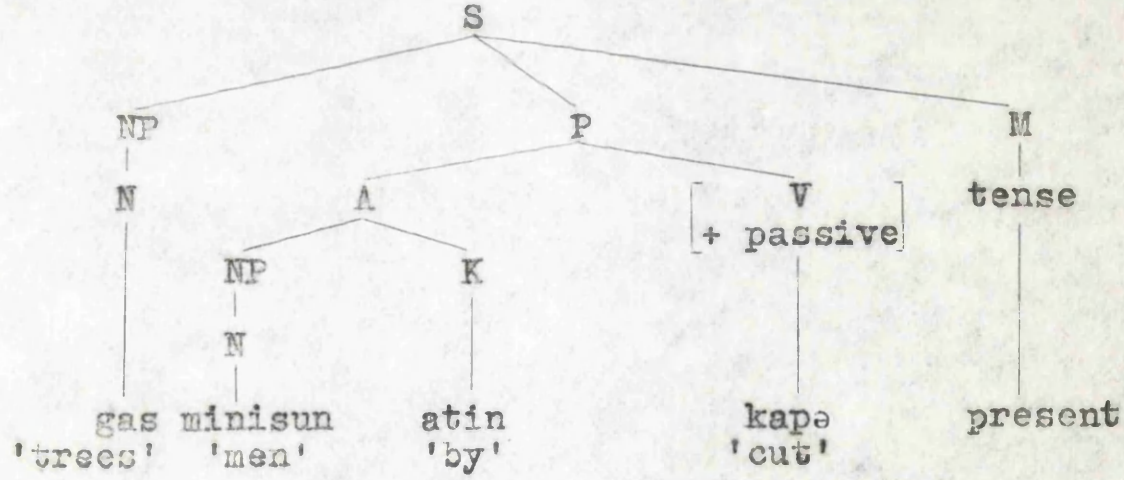

Fig. 5.15. Application of the [+ passive] feature assignment rule

The surface structure of Sentence (5.12) is obtainable from the configuration in Figure 5.15 by incorporating the tense

marker into the main verb. The [+ passive] feature changes all back vowels of the verbal root into front vowels.

At this point a revision of the word boundary transformation is proposed. I stated earlier[1] that the word boundary transformation is not applied in the context N - K. Nevertheless, if the K element is atin/lavva[2] 'by', the word boundary transformation must be applied. Consequently, the construction minisun atin 'men by' in Figure 5.15 must be treated as two words.

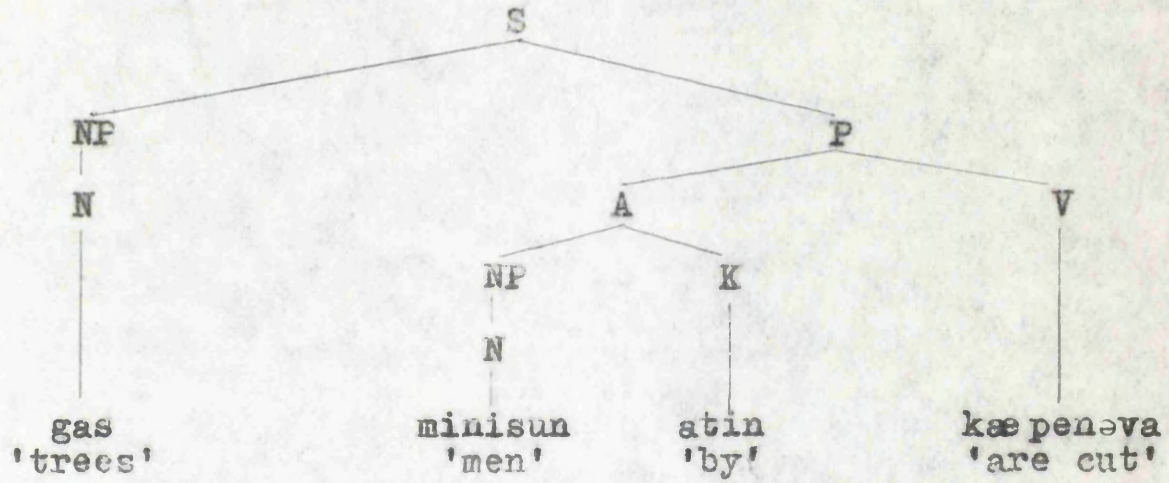

Fig. 5.16. Surface Structure of Sentence (5.12)

The underlying structure of Sentence (5.14) is represented in the following diagram.

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1. See above Chapter 4, p.103

2. The occurrence of post-position lavva 'by'. See below Chapter 7, pp.222-223

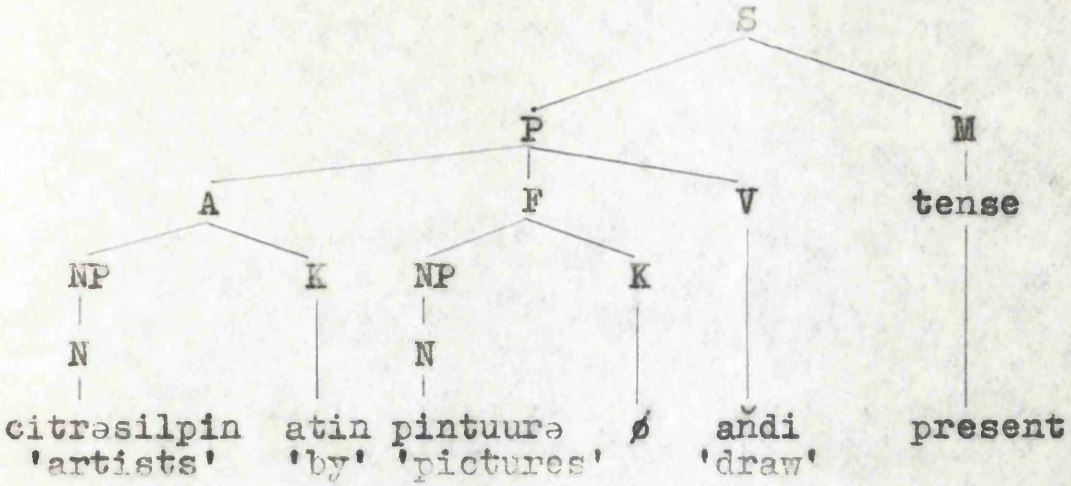

Fig. 5.17. Underlying Structure of Sentence (5.14)

Sentence (5.15) contains an underlying structure similar to that of in Figure 5.17 until it reaches the terminal string. In order to convert Sentences (5.14) - (5.15) into their surface structures the following set of rules must be applied successively.

(i) Subjectivalization rule to the Factitive element.

(ii) Deletion of the case category symbol and the case marker of the string which was chosen as the subject.

(iii) The passive feature assignment rule.

(iv) The incorporation of the tense marker into the main verb.

The consequences of the operation of these rules upon the underlying structures of Sentences (5.14) - (5.15) are similar to those that I have been discussing in the generation of Sentence (5.12). Therefore the systematic development of

Sentences (5.14) - (5.15) is not described here in detail.

5.25

5.251 The verbs in the following list denote feelings or emotions, and they do not absorb the tense marker. Therefore, I do not specify a tense marker in the underlying structures of sentences in which these verbs appear.

aadəre	'love'
aasa	'like'
iirsya	'jealous'
kæməti	'like'

The syntactically complete sentences in which one of these verbs appear should contain two arguments. One of them must identify an animate being who 'experiences' the feeling or emotion denoted by the verb. However, it is not agentively involved in the 'process'. Consider the following sentences.

(5.17) kaantaavo daruvanTə aadəre yi

Nn Nd V

'women' 'children-to' 'love'

'Women love children'.

(5.18) sisyəyo pintuurəvələTə kæməti yi

Nn Nd V

'students' 'paintings-to' 'like'

'The students like paintings'.

The elements kaantaavo 'women' and sisyəyo 'students' in Sentences (5.17) - (5.18) experience what are denoted by the verbs aadəre 'love' and kæmati 'like'. Therefore they are recognized as Dative elements. Then a problem arises as to the recognition of the nominal elements daruvanTə 'children-to' and pintuurəvələTə 'paintings-to' in Sentences (5.17) - (5.18). Can we recognize them as Datives on the basis of their surface dative feature? Already we have recognized a Dative element in Sentences (5.17) - (5.18). According to the principles of case grammar we cannot recognize two Dative elements in a simplex sentence. On the other hand, it can be asked whether the arguments daruvanTə 'children-to' and pintuurəvələTə 'paintings-to' fulfil the conditions of the definition set up for the Dative case. This is a debatable point. However, the argument pintuurəvələTə 'paintings-to' in Sentence (5.18) cannot be recognized as a Dative because it does not contain the [+ animate] feature. Therefore, I recognize the second nominal element in Sentences (5.17) - (5.18) as an Objective. So the case-frame for the verbs listed in this section is [D + O ——].

The underlying structure of Sentence (5.17) is represented in the following figure.

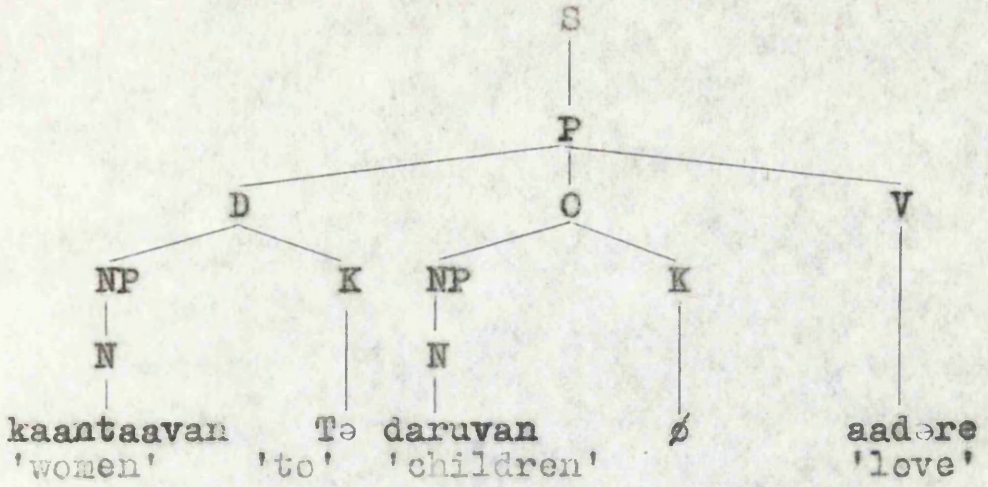

Fig. 5.18. Deep Structure of Sentence (5.17)

The subjectivalization rule is applied to the Dative element. The case marker is deleted. The case category symbol is removed. The application of these rules to the configuration in Figure 5.18 yield the following structure.

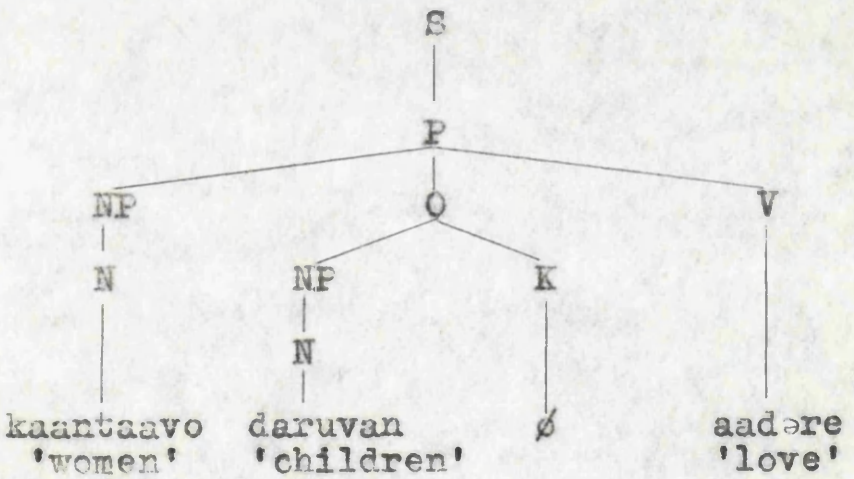

Fig. 5.19. Subjectivalization

Then a problem arises as to the Objective constituent of the configuration in Figure 5.19. It does not function as the surface object of Sentence (5.17) and it appears in the

dative case-form. This phenomenon should be given an explanation.

The K node of the O element does not end in phonetic material. In principle, the nodes that do not end in phonetic material are not specified in the surface structure configurations of sentences. All those nodes must be deleted. But an underlying case marker - a K node - cannot be deleted in this way. The deletion of an underlying case marker indicates the neutralization of deep case relations. The only rules that have the power of neutralizing the underlying case relations are the subjectivalization and the objectivalization rules. Therefore some phonetic material must be introduced into the K node of the Objective constituent in Figure 5.19. The following transformational rule is postulated to accomplish this purpose.

(5.19) Tə Introduction Rule

SD. $N - N - {}_K[\emptyset]_K - V$

SC. $1 \quad 2 \quad {}_K[\emptyset]_K - 3 \xrightarrow{OBL}$

$1 \quad 2 \quad {}_K[\text{Tə}]_K - 3$

Condition: V contains the feature [- surface object]

The application of Rule (5.19) and the operation of the spelling rule that introduces the particle yi yield the surface

structure of Sentence (5.17)

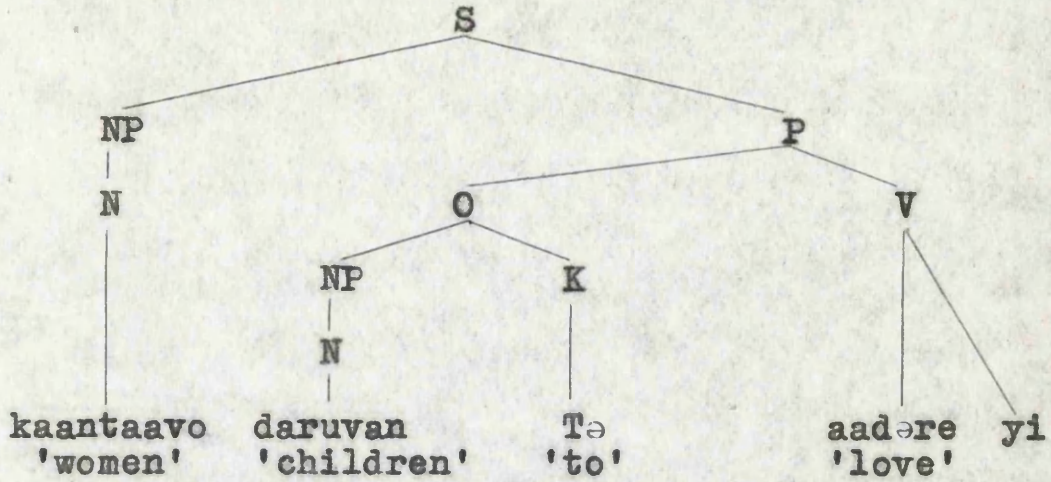

Fig. 5.20. Surface Structure of Sentence (5.17)

5.252 The verb dannəva 'know' presumably belongs to the group of aadəre 'love' type verbs that I have been discussing. It absorbs the present tense marker, but it does not have a past tense form. The case-frame for the verb dannəva 'know' is [D + O——]. At the surface level the Dative element functions as the subject while the Objective element functions as the object. Presumably, this is the only verb of this kind which accepts both the surface subject and the surface object. Consider the following sentence:

(5.20) piyəseenə saastrəyə dannəva

Nn Na V

'Piyasena' 'the humanities' 'know'

'Piyasena knows the humanities'

This sentence contains a surface subject and a surface object.

It seems that the verb dæ nenəva 'know/feel' is formally related to dannəva 'know'. They seem to be synonymous.[1] Consider the following sentence.

(5.21) piyəseenəTə saastrəyə dæ nenəva

Nd Nn V

Piyasena-to 'the humanities' 'know'

'Piyasena knows the humanities'.

Native Sinhalese speakers do not notice a significant semantic distinction between Sentences (5.20) and (5.21). Nevertheless, their surface grammar is totally different. In the deep grammar, it is possible to specify a single case-frame, namely: [D + O ——], for both forms dannəva and dæ nenəva 'know'. The arguments of this case-frame are unordered. If the order of arguments is [D + O ——] the verb form dannəva 'know' is accepted into it. The verb form dæ nenəva 'know' is inserted if the order of arguments is [O + D ——]. The grammatical description of Sentence (5.21) is parallel to that of the verbs in Section 5.26.

5.26 The deep grammar of the following verbs is parallel to that of the verbs that I have been discussing in Section

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1. See below Chapter 8, pp.245-246

5.25. But their surface grammar is different. Consider the following verbs:

pilikul 'despise'

pudumə 'excite'

visvaasə ' believe'

These verbs, too, denote emotions, and they are insertable into the frame [O + D ——] and they do not absorb the tense marker. The Objective element is selected as the surface subject. (The verbs in Section 5.25 selected the Dative element as the surface subject).

(5.22) apəraadə bohoodenaaTə pilikul

Nn Nd V

'Crimes' 'many-people-to' 'despise'

'Many people despise crimes'.

(5.23) mee nagərəye alaNkaarəyə apəTə puduma yi

Nn Nd V

'this' 'city-in' 'beauty' 'us-to' 'excite'

'The beauty of this city is exciting to us'.

The rôles of participants - bohoodenaaTə 'many-people-to' and apəTə 'us-to' - who experience what is denoted by pilikul 'despise' and pudumə 'excite' - are specified as Datives. The other nominals in Sentences (5.22) - (5.23) are treated as Objectives. The surface structure of Sentence (5.22) is represented in Figure 5.21.

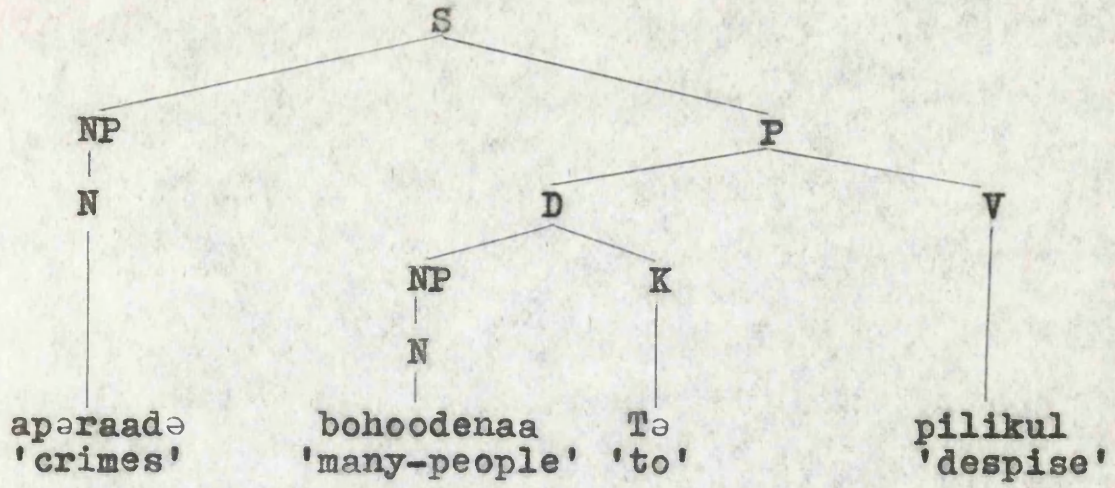

Fig. 5.21. Surface Structure of Sentence (5.22)

5.27 The verbs

æ lenəva	'stick'
væ denəva	'strike'
hæ ppenəva	'collide'
gæ æ venəva	'smear'
ihirenəva	'spill'

are accepted into the frame [O + L ——]. The Objective element is selected as the surface subject. Consider the sentences:

(5.24) booləyə bittiye væ denəva

Nn Nl V

'ball' 'wall-on' 'hit'

'The ball hits against the wall'.

(5.25) muddərəyə kaDədaasiye æ lenəva

Nn Nl V

'stamp' 'paper-on' 'stick'

'The stamp sticks on the paper'.

The underlying structure of Sentence (5.24) is depicted in Figure 5.22.

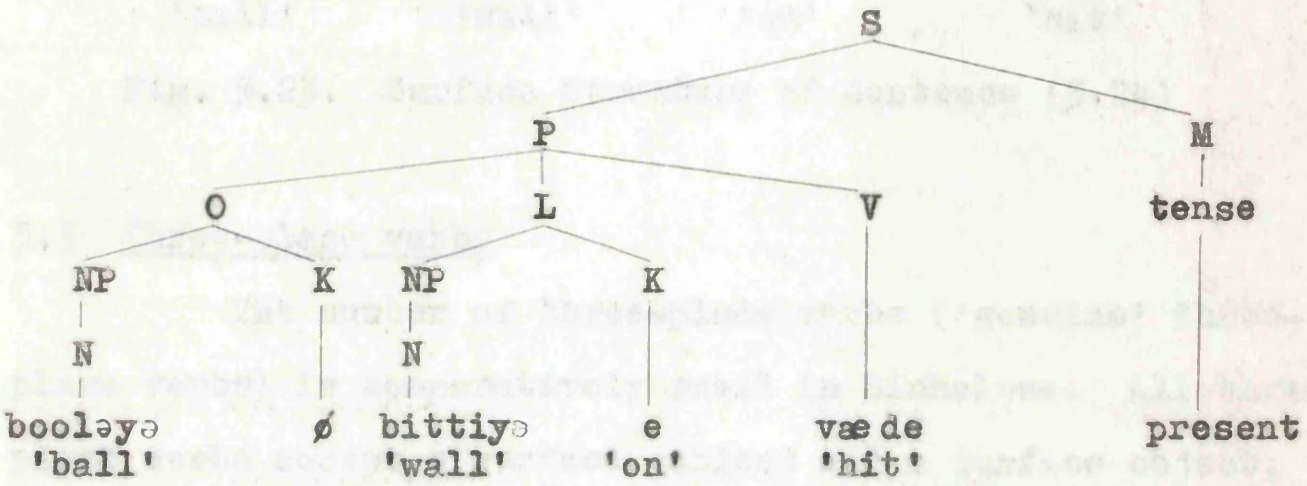

Fig. 5.22. Deep Structure of Sentence (5.24)

The application of the subjectivalization rule to the Objective element and the incorporation of the tense marker into the main verb convert the structure in Figure 5.22 into its surface structure.

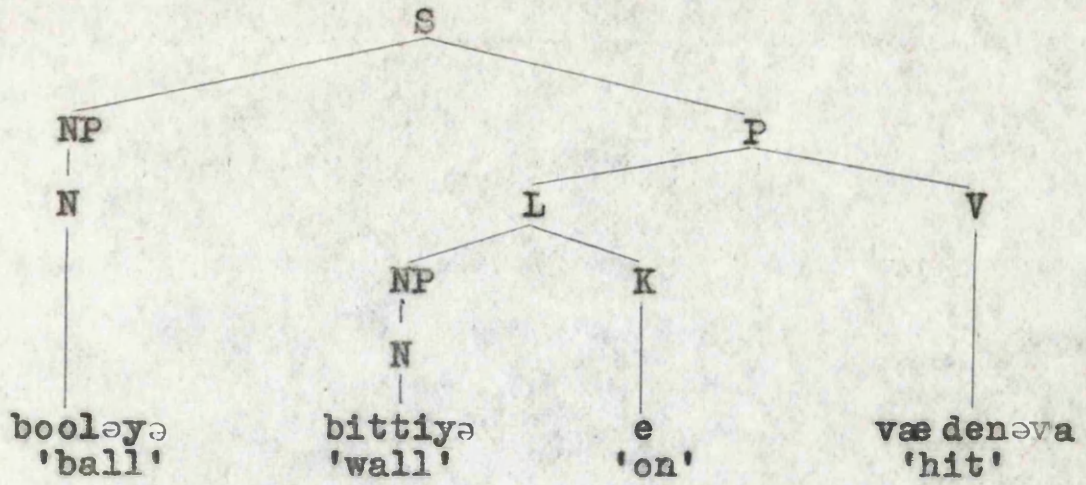

Fig. 5.23. Surface Structure of Sentence (5.24)

5.3 Three-place verbs

The number of three-place verbs ('genuine' three-place verbs) is comparatively small in Sinhalese. All three-place verbs accept a surface subject and a surface object; and they satisfy necessary conditions for passivization.

5.31 Consider the verbs:

kiyənəva	'tell'
denəva	'give'[1]
pudənəva	'offer'
sapəyənəva	'supply'

These verbs are insertable into the case-frame [A + D + O ——].

---

1. There is a proposal to treat the verb denəva 'give' as a causative verb. Cause NP to Have ⇒ Give. At this point, I do not adopt this analysis.

This case-frame offers a choice of subject. In the 'unmarked' choice of subject, the Agentive element is selected as the surface subject while in the 'marked' subject choice the Objective element is selected as the surface subject. The Dative element appears in the dative case-form. Consider the following examples.

(5.26) siiya laməyinTə katandərəyak kiyənəva

Nn Nd Na V

'grandfather' 'children-to' 'story-a' 'tell'

'The grandfather is telling a story to the children'.

(5.27) æmerikaanuvo dakunu viyəTnaameTə avi-aayudə sapəyənəva

Nn Nd Na V

'Americans' 'South Vietnam-to' 'weapons' 'supply'

'Americans supply South Vietnam with weapons'.

(5.28) siriseenə siitaTə potak denəva

Nn Nd Na V

Sirisena 'Sita-to' 'book-a' 'give'

'Sirisena is giving a book to Sita'.

The underlying structure of Sentence (5.26) is represented in the following diagram.

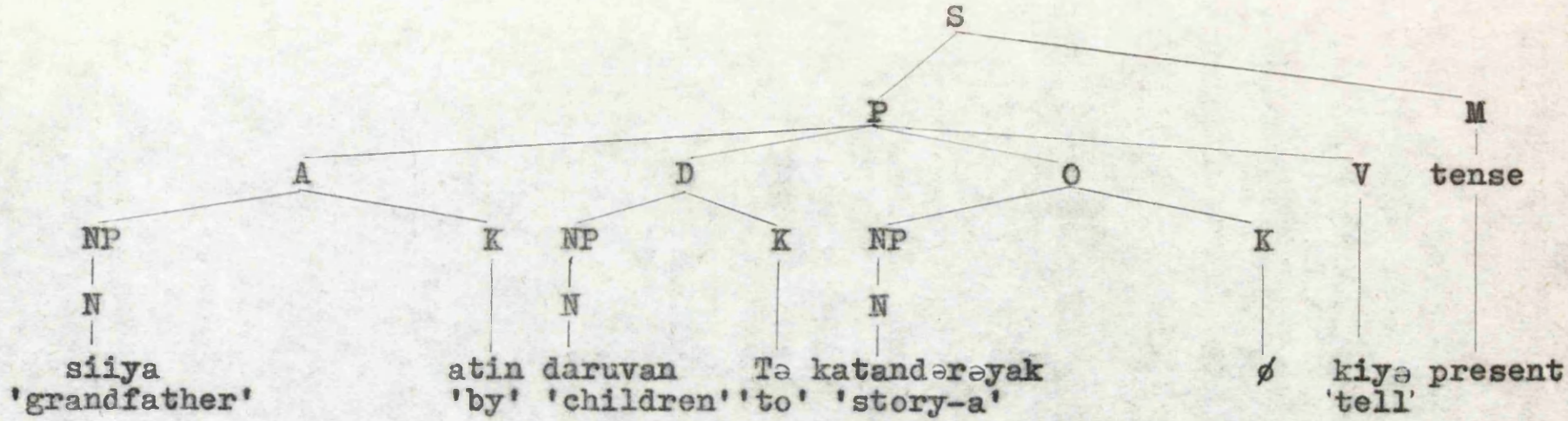

Fig. 5.2 Deep Structure of Sentence (5.26)

The Subjectivalization rule is applied to the Agentive element in the 'normal' choice of subject. The Objective element is selected as the surface object. Then, the tense marker is incorporated into the main verb. The consecutive application of these rules yields the surface structure of Sentence (5.26).

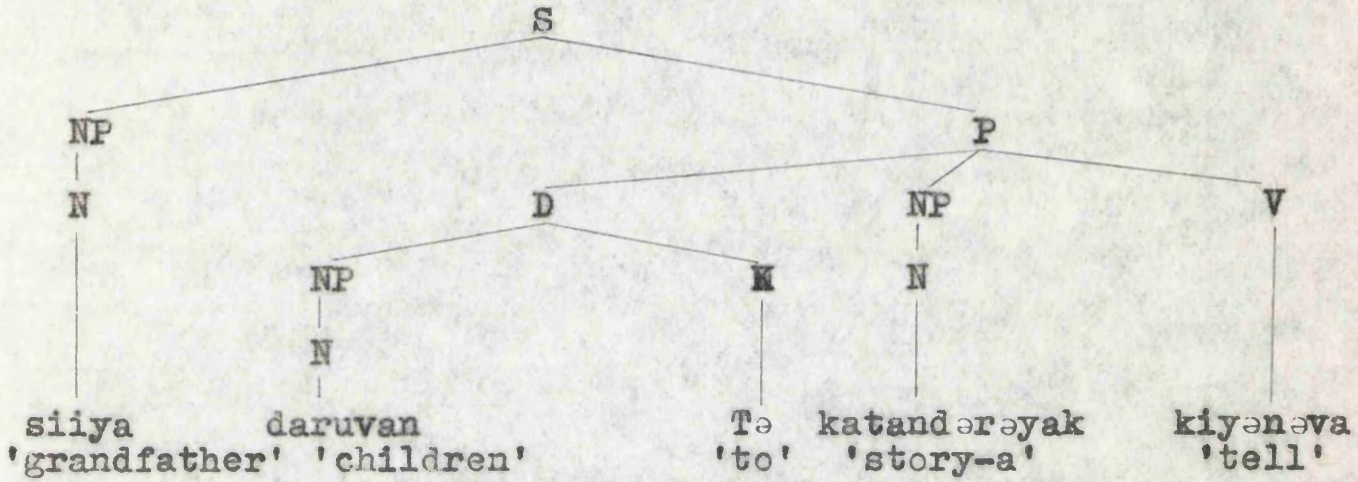

Fig. 5225. Surface Structure of Sentence (5.26)

In the 'non-normal' choice of the surface subject, the subjectivalization rule is applied to the Objective element. The result of it is:

(5.29) <u>katandərəyak</u> <u>siiya</u> <u>atin</u> <u>daruvanTə</u> <u>kiyæ venəva</u>

Nn N p.p. Nd V

'story-a' 'grandfather' 'by' 'children-to' 'is told'

'A story is being told by grandfather to the children'.

It must be mentioned that the Dative element in the environment of three-place verbs is never selected as the surface object

or the surface subject. It appears as a constituent in the propositional portion of the surface structure of sentences.

5.32 Now, I return to the description of some other locutionary verbs whose grammar is somewhat different from that of kiyənəva 'say/tell'. Consider the following verbs.

ahanəva, illənəva } 'ask'

vimәsənəva 'inquire'

These verbs are accepted into the case-frame [A + O + D ——]. The A element is selected as the surface subject in normal sentences while the O element is selected as the surface object. The Dative element appears in the instrumental case-form. The examples are:

(5.30) mamə potak mahattəyagen illənəva

Nn Na Ni V

'I' 'book-a' 'master-from' 'ask'

'I ask the master for a book'

(5.31) mahattəya prasnəyak sisyəyagen ahanəva

Nn Na Ni V

'master' 'question-a' 'student-from' 'ask'

'The master asks the student a question'

The typical locutionary verb is kiyənəva 'say/tell' and it is inserted into the case-frame [A + O + D ——]. The Agentive

argument identifies the producer of the speech act while the Dative argument identifies the addressee and it is realized in the Dative case-form. Although the verbs ahanəva 'ask' and illənəva 'ask' are locutionary verbs, the Dative arguments which occur with them appear in the instrumental case-form. This should be treated as an idiosyncratic feature of verbs illənəva 'ask' and ahanəva 'ask'. Therefore the surface instrumental case-form in Sentences (5.30) - (5.31) should be introduced transformationally.

5.4 Incorporation of Lexical items

The verbs in the following list contain special features. At the superficial level they seem to be simple verb forms; but the investigation of the grammar of sentences in which they occur reveal otherwise.

garahanəva	'insult'
gahanəva	'hit'
baninəva	'rebuke'
salәkənəva	'treat'
vidinəva	'shoot (with an arrow)'.

Consider the following examples:

(5.32) kollo ballanTə gahanəva

Nn Nd V

'lads' 'dogs-to' 'hit'

'The lads hit the dogs'.

(5.33) væddo satunTə vidinəva

Nn Nd V

'veddas' 'animals-to' 'shoot'

'Veddas shoot at animals'.

Examples (5.32) - (5.33) contain verbs from the above list. If we accept these verbs as simple lexical items, they can be specified as two-place verbs which are accepted into the case-frame [A + D ——]. The noun-phrases ballanTə 'dogs-to' and satunTə 'animals-to' in (5.32) - (5.33) are recognized as Dative elements because they satisfy the conditions of the definition of Fillmore's Dative case. Moreover, it is inflected for the Dative case-form.

One of the general rules in a case grammar of Sinhalese can be stated like this:

> 'If the case array for a particular verb contains two case categories - namely, Agentive and either Objective or Dative - the Agentive element is selected as the 'surface subject'; the other case category is selected as the 'surface object'.

If we accept that the case-frame [A + D ——] is of the verbs of gahanəva 'hit' type, the Agentive element must appear as the 'surface subject' of 'normal' sentences. The

Dative element must be the 'surface object' and it must be realized in the accusative case-form.[1] The investigation of sentences (5.32) - (5.33) shows that the Dative element does not function as the surface object; moreover it appears in the dative case-form. What is the reason for this? A particular kind of solution can be offered to the problem by treating this phenomenon as an irregularity. It imposes an arbitrary subcategorization of verbs. On the other hand the case-frame [A + D ——] satisfied necessary conditions for passivization,[2] but Sentences (5.32) - (5.33) do not have corresponding passive constructions. The generation of the ungrammatical passive construction must be blocked by postulating an additional rule. However, this is a purely ad-hoc device.

I would prefer, therefore, to attempt another solution to the problem. I argue that Sentences (5.32) - (5.33) lack a 'surface object'. The case-frame [A + D ——] for the verbs of the type gahanəva 'hit' seems incorrect. I treat these verbs as lexical items with sub-structures. They contain an

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1. See above Section 5.23. The D element of the case-frame [A + D ——] functions as the surface object in normal sentences and it appears in the accusative case-form.

2. See above Section 5.242, p. 138 for conditions for passivization.

Objective element and a verb. My best guess is that the Objective element in the verb gahanəva 'hit' might be similar to paharə 'a blow' or 'a punch' and the verb might be similar to denəva 'give'. In this context paharə 'a blow/punch' and denəva 'give' should be taken as semantic material. At a certain level of the derivational process, the semantic material at the termination of the Objective node should be incorporated in to the verb.[1]

Some amount of evidence for such a tentative conclusion can be advanced from Sinhalese. Consider the following sentence: (I use singular noun-phrases in these examples because they show the facts clearly).

(5.34)

kolla	ballaTə	paharak	denəva
Nn	Nd	Na	V
'the lad'	'the dog-to'	'blow-a'	'give'

'The lad is giving a blow to the dog'.

I treat the nominal element paharak 'blow-a' as an Objective element. It contains the indefinite suffix -{Ak}. Now, compare Sentence (5.34) with Sentence (5.35).

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1. The idea of incorporating arguments into predicates. See Charles J. Fillmore 'Types of Lexical Information' in F. Kiefer (ed.) Studies in Syntax and Semantics, D. Reidel, Dordrecht, Holland (1969) pp. 119-120.

(5.35) kolla ballaTə paharə denəva

Nn Nd V

'The lad is hitting the dog'

The only difference between Sentence (5.34) and (5.35) is that Sentence (5.35) lacks the indefinite suffix -{Ak} in the environment of paharə. The construction[1] paharə denəva 'hit' in Sentence (5.35) can be replaced by gahanəva 'hit'. It does not affect the semantic interpretation of Sentence (5.35). Therefore, I conjecture that the verb gahanəva 'hit' contains an Objective element which is incorporated into it. Such an assumption enables us to explain the reasons for the lack of a surface object in Sentence (5.32). The same device can be extended to describe the grammar of sentences containing the verbs on page 159 . Further, it discloses the cause for the appearance of the Dative element in the dative case-form.

The underlying structure of Sentence (5.32) contains a three-place verb which should be inserted into the case-frame [A + O + D ——]. I am not certain what the particular

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1. The nature of COMPOSITE FORMS (forms which contain more than one root morpheme e.g. paharə denəva 'hit') in Sinhalese is still unclear, and they need a detailed study. The construction paharak denəva 'blow-a give' in Sentence (5.35) obviously contains a nominal with the indefinite suffix and a verb. It seems that the construction paharə denəva 'hit' in Sentence (5.35) can be treated as a single lexical item.

verb is. So I conjecture that the underlying structure of Sentence (5.32) will be like in Figure 5.26.

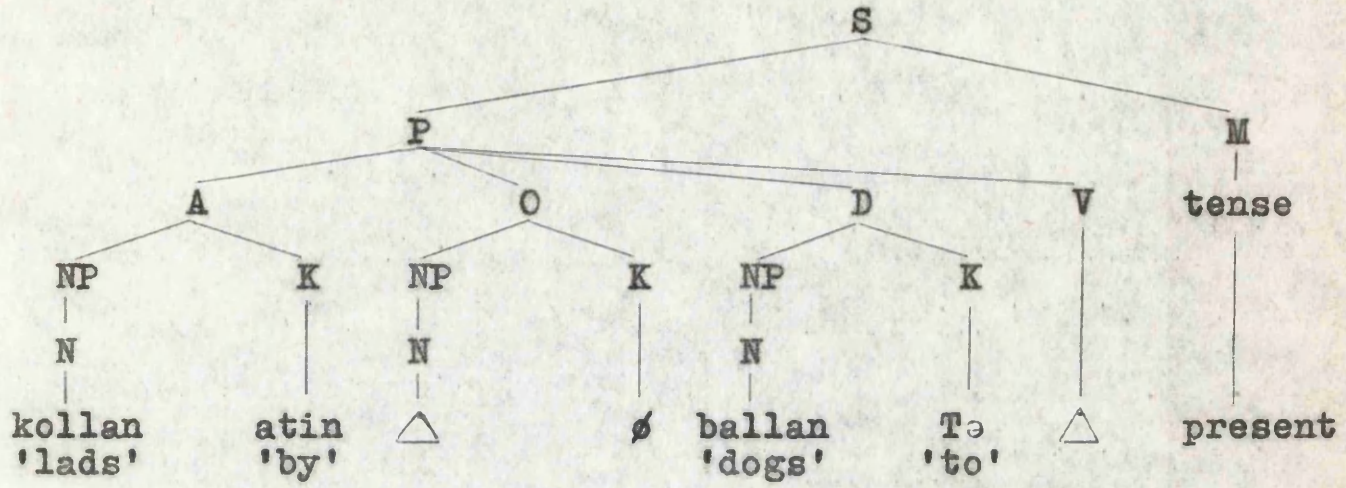

Fig. 526. Deep Structure of Sentence (5.32)

In the first instance a transformational rule incorporates the semantic content of the Objective element into the V element; and it is lexicalized. The result of the operation of these transformations is represented in Figure 5.27.

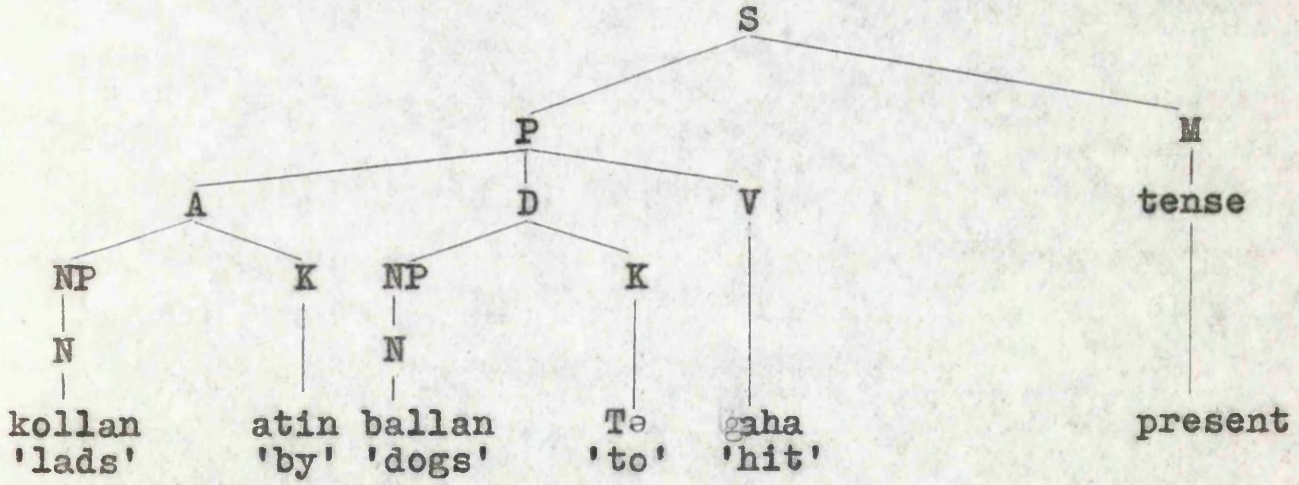

Fig. 5.27. Incorporation of O into V and Lexicalization

The case array [A + O + D ——] automatically specifies the elements to which the subjectivalization and objectivalization rules should be applied. The A element is selected as the surface subject of 'normal' sentences. The O element should become the surface object, but the configuration in Figure 5.27 does not contain an O element. So, the Objectivalization rule is not applied. <u>The Dative element in the environment of three-place verbs never functions as the surface object of Sinhalese sentences</u>. It is realized in the dative case-form. The following configuration shows the surface structure of Sentence (5.32)

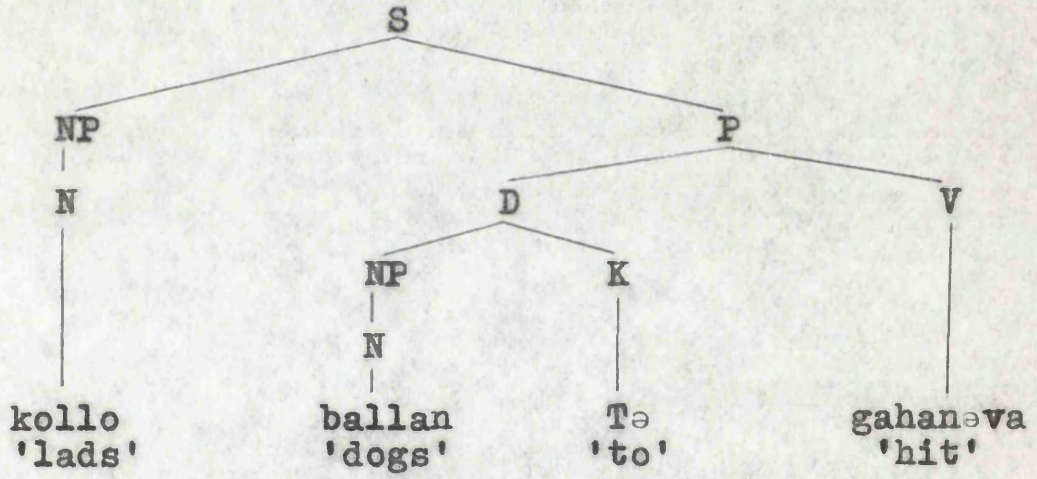

Fig. 5.28. Surface Structure of Sentence (5.32)

It seems that an analysis of this kind resolves a number of problems associated with the verbs of <u>gahanəva</u> 'hit' type. Sentence (5.32) does not have a corresponding passive sentence because after the incorporation of the O

element into the verb, it does not contain an argument to which the subjectivalization rule can be applied in the 'non-normal' choice of surface subject.

5.5. Summary

I have been presenting, in the preceding pages, various combinations of arguments in the environment of two-place verbs and three-place verbs. Those combinations are

(i) [A + O ——]
[A + F ——]
[A + D ——]

(ii) [D + O ——]
[O + D ——]
[O + L ——]

(iii) [A + O + D ——]

These combinations and the frame[1] [C_a——] constitute the subject choice hierarchy of Sinhalese sentences.

The arguments in Groups (i) (ii) and (iii) are ordered. The noun-phrase which identifies the first argument is selected as the surface subject[2] while the noun-phrase

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1. See Chapter 4, pp. 99-124 C_a = any case category.

2. The surface subject and the surface object are defined configurationally. The noun-phrase that immediately dominated by the category symbol S is called the surface subject. The noun-phrase immediately dominated by the category symbol P is called the surface object.

which identifies the second argument is selected as the surface object except in Group (ii). The verbs that are inserted into the frames in Group (ii) do not accept a surface object. The noun-phrase which identifies the second argument of the frames in Group (ii) and the third argument in Group (iii) appears as a postposition-phrase. These rules are relevant to the 'normal' choice of the surface subject.

The combinations containing an A (Groups (i) and (iii)) must select the A element as the surface subject in 'normal' sentences. Moreover, the 'non-normal' choice of subject is associated with these combinations.

The noun-phrase which identifies the second argument in the above case category combinations, except in Group (ii), is selected as the surface subject of 'non-normal' sentences.

CHAPTER 6

INSTRUMENTAL, LOCATIVE AND TIME CASES

6.0 Introduction

This chapter is devoted to the discussion of a number of problems, namely: the Instrumental, Locative and Time arguments. All these cases occur as nuclear as well as extra-nuclear constituents of sentences. It seems Fillmore is not very clear on the nature of the extra-nuclear constituents.

The verbs that denote motions are called *dynamic* verbs and they are opposed to non-motion verbs which are known as *static* verbs. Static and dynamic verbs are directly associated with locational and directional elements respectively. Fillmore, in 'The Case for Case', has not accounted for the *to* and *from* distinction which is a 'secondary division within directional'. He postulates two case categories, namely: Source and Goal in his later publications.[1] I

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1. Fillmore, Charles J., 'Types of Lexical Information' in F. Kiefer (ed.) *Studies in Syntax and Semantics* (1969) pp. 109-137. In the following publication, Fillmore has recognized the point from which the movement started out and the point at which it ended up as underlying rôle types. 'Subjects, Speakers and Roles' in *Working Papers in Linguistics* No. 4 (May 1970) Section 41, The Ohio State University.

utilize these cases to explain the structure of sentences in which there are dynamic verbs.

Finally, I propose a test which can be employed to determine extra-nuclear Locative and Time Cases. It seems that these extra-nuclear constituents should be introduced from super-ordinate sentences in order to avoid statements which are contradictory to the basic principle which says "each case relationship occurs only once in a simple sentence".

6.1 The Instrumental Case

A number of queries are raised about the way in which the Instrumental elements are handled in case-grammar. The basic reason for it is the syntactic properties of the Instrumental case. At the outset it must be made clear that the occurrence of Instrumental in the nuclear portion of sentences is limited. Sentences (6.1) - (6.2) below contain Instrumental elements. I shall begin to describe the structure of these sentences adopting the assumption that their Instrumental case elements are inside the nuclear portion.

The verb pirenəva 'fill' is accepted into the frame [I + L ——]. The behaviour of it is exemplified by the following sentences.

(6.1) liňdə vaturen pirenəva

Nn Ni V

'well' 'water-with' 'fill'

'The well fills with water'.

(6.2) vaturə liňde pirenəva

Nn Nl V

'water' 'well-in' 'fill'

'Water fills the well'.

I assume Sentences (6.1) - (6.2) are semantically identical and they have a common underlying structure.

Examples (6.1) and (6.2) show that the verb pirenəva 'fill' has some peculiar features. It selects either Locative or Instrumental as the surface subject. The underlying structure of Sentences (6.1 - 6.2) is represented configurationally in Figure 6.1.

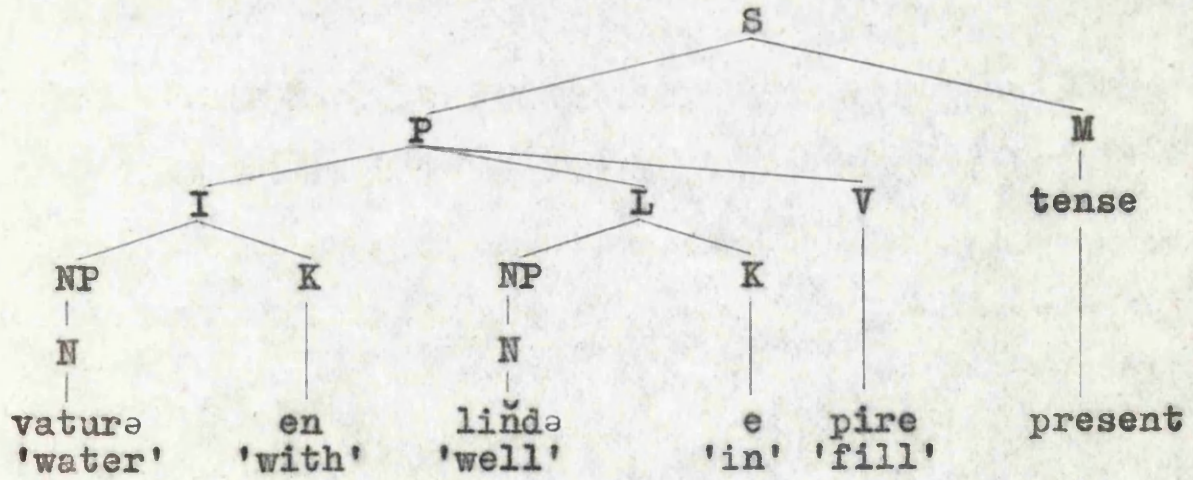

Fig. 6.1. Deep Structure of Sentences (6.1) - (6.2)

The surface realizations of Sentences (6.1) -(6.2) are different from each other. This difference entirely depends upon the application of the subjectivalization rule either to I or L. The Locative argument has been selected as the subject in Sentence (6.1), while in Sentence (6.2), the Instrumental argument has been selected.

The obligatory feature of the Instrumental case is [- animate]. The following sentences seem to be counter-examples for the feature specification rule.

(6.3) saalaavə minisungen pirenəva

Nn Ni V

'hall' 'men-from' 'fill'

'The hall fills with men'.

(6.4) minissu saalaave pirenəva

Nn Nl V

'men' 'hall-in' 'fill'

'Men fill the hall'.

Again, I assume that Sentences (6.3) - (6.4) are semantically indientical and they have a common deep structure which is represented in Figure 6.2.

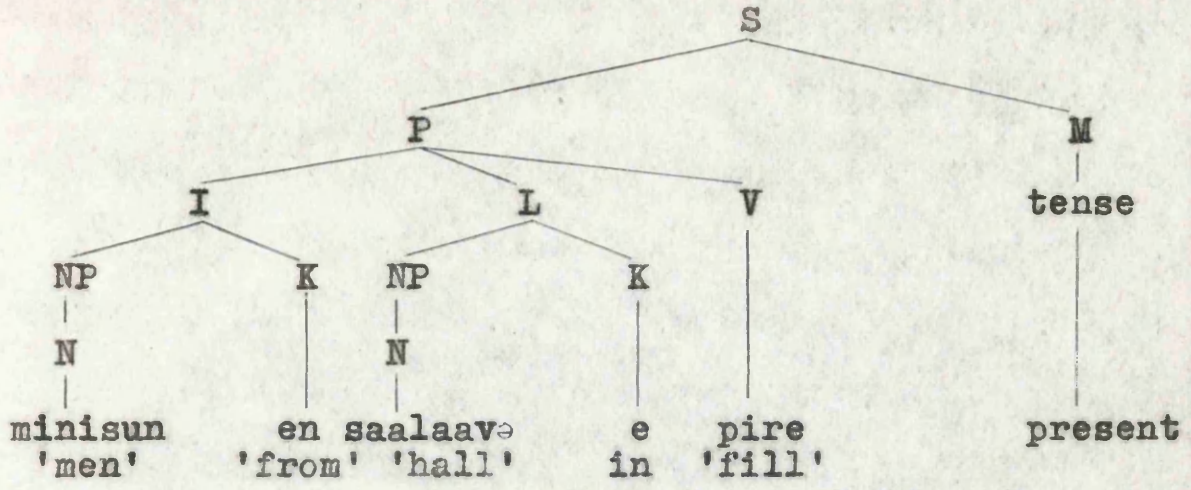

Fig. 6.2. Deep Structure of Sentences (6.3) - (6.4)

The Instrumental argument in Figure 6.2 seems to have the feature [+ animate], but it must be understood as a constituent containing the feature [- animate]. At this stage, I cannot think of another way to describe the structure of Sentences (6.3) - (6.4). Therefore, I conjecture that the underlying structure of Sentences (6.3) - (6.4) contains elements to give the meaning 'The hall fills with the bodies of men'.

The Instrumental elements that I have been discussing do not raise basic theoretical problems because they occur in the nuclear portion of sentences. They can be identified as rôles inherent in the meaning of the verb pirenəva 'fill' and they must be mentioned in order to generate syntactically complete sentences.

Apart from the sentence rype represented by

Sentences (6.1) - (6.4), Instrumental arguments occur in some other sentence types. They are explained in coming pages. An explicit discussion about their syntactic behaviour will reveal some important facts about the way in which the Instrumental elements should be dealt with.

6.12 Fillmore on the Instrumental Case

According to Fillmore's statement the following sentences contain Instrumental elements.

(6.5) The key opened the door

I V O

(6.6) John opened the door with the key.[1]

A V O I

The Instrumental element appears as the surface subject in Sentence (6.5) while in Sentence (6.6) it appears as a constituent of the propositional portion.

The prepositional phrase 'with the key' in Sentence (6.6) can be omitted, still leaving Sentence (6.6) 'John opened the door' as a viable sentence.

Now, it should be asked whether the prepositional phrase of Sentence (6.6) is inside the VP or outside the VP. If the do so test of George Lakoff is correct the prepositional

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1. 'The Case for Case', p. 25.

phrase 'with a key[illegible]' of Sentence (6.6) is outside the VP.[1] However, the instrumental constituent in Sentence (6.6) is an adjunct rather than a complement.

Fillmore has limited his discussion to the propositional core of simple sentences. He explicitly states:

> "... I have the feeling that real progress can be made in understanding the elementary structure of the propositional core of simple sentences".[2]

What is the propositional core? Has he defined it? Does it contain all arguments which are inherent in the meaning of a verb? or Does it contain only syntactically required constituents? There is no very clear answer to these questions in case grammar. But, Fillmore states "the 'proposition', a tenseless set of relationships involving verbs and nouns (and embedded sentences, if there are any)".[3] Therefore I take the verb and the rôles that are inherent in the meaning of the verb as the entities of the propositional core. Further, I make a distinction between the entities which are

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1. It must be borne in mind that the do-so test of George Lakoff is a matter of controversy. (The category symbol VP is not used in case grammar but I used it here to explain the facts).

2. Fillmore, Charles J., 'Lexical Entries for Verbs' in Foundations of Language 4 (1968), p. 393.

3. 'The Case for Case', p. 23.

syntactically-'required' and syntactically-'non-required'. Syntactically-required elements are obligatory; syntactically-'non-required' elements are optional. The syntactically-'required' elements are deleted by the deletion rule, while the syntactically 'non-required' elements are left out without mentioning. The constituent 'with the key' in Sentence (6.6) is an optional element. Therefore, it should be borne in mind that there is a necessary correspondence between the optional elements of sentences and noun-phrases outside the VP. However case grammar lacks explicit theoretical discussions about these points.

6.13 The definition of Instrumental and its co-occurrence relations

Fillmore uses the term Instrumental in a wider sense. He defines it as:

> "Instrumental (I), the case of the inanimate force or object causally involved in the action or state identified by the verb".[1]

George Lakoff[2] imposes some restrictions on the occurrence of instrumental adverbials. The verb of the

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1. 'The Case for Case', p. 24.

2. Lakoff, George, 'Instrumental Adverbs and The Concept of Deep Structure' in Foundations of Language 4 (1968) 4-29.

sentence in which there is an instrumental adverbial should contain the feature [+ activity]. Moreover, it should be a transitive verb. The 'deep subject' of the sentence should be an animate noun. So, the contextual features of the instrumental adverbial are represented as:

[+ N, + animate] + [+ V, + activity] + [+ N, ...]
+ [——]

Fillmore does not impose such restrictions upon the occurrence of the Instrumental case. Therefore, the Instrumental case in case grammar is not sensitive to the occurrence of a 'deep animate subject' or the 'transitive' feature of the main verb.

However, the Instrumental element does not occur freely with every type of verb. It is sensitive to certain selectional restrictions and co-occurrence relations. The verbs with the feature [+ adjectival] do not accept Instrumentals.

There is another group of verbs which do not accept Instrumentals. They contain the feature [+ activity] and their frame feature is [A ——]. The verbs aňDənəva 'cry', burənəva 'bark' etc. belong to this category.

6.14 The Instrumental case and one-place verbs

The verbs in the following list denote processes.

kæ Denəva 'break/collapse'

væ nəsenəva 'devastate'

veelenəva 'dry'

seləvenəva 'shake'

These verbs are insertable into the case-frame [O ——]. Optionally, they accept the Instrumental element.

Fillmore employed the parenthesis notation to denote the optionality of arguments.[1] I adopt the same devise to specify optional arguments in case-frames. So, I revise the case-frame [O ——] as [O + (I) ——] to accommodate the Instrumental element.

The Objective element which occurs with each verb is selected as the surface subject. The Instrumental element never appears as the surface subject of Sinhalese sentences. Consider the following examples:

(6.7) atta suləṅgin kæ Denəva

Nn Ni V

'branch' 'wind-with' 'break'

'The wind breaks the branch.'

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1. The term 'optional' element contains a different meaning in Fillmore's thesis. I use the same term to denote adjuncts. (See 'The Case for Case', p. 27).

(6.8) <u>geval</u> <u>kunaaTuven</u> <u>væ nəsenəva</u>

Nn Ni V

'houses' 'storm-with' 'devastate'

The storm devastates houses.

The underlying structure of Sentences (6.7) - (6.8) is identical until they reach their terminal strings.

The deep structure configuration of Sentence (6.7) is represented in the following tree diagram.

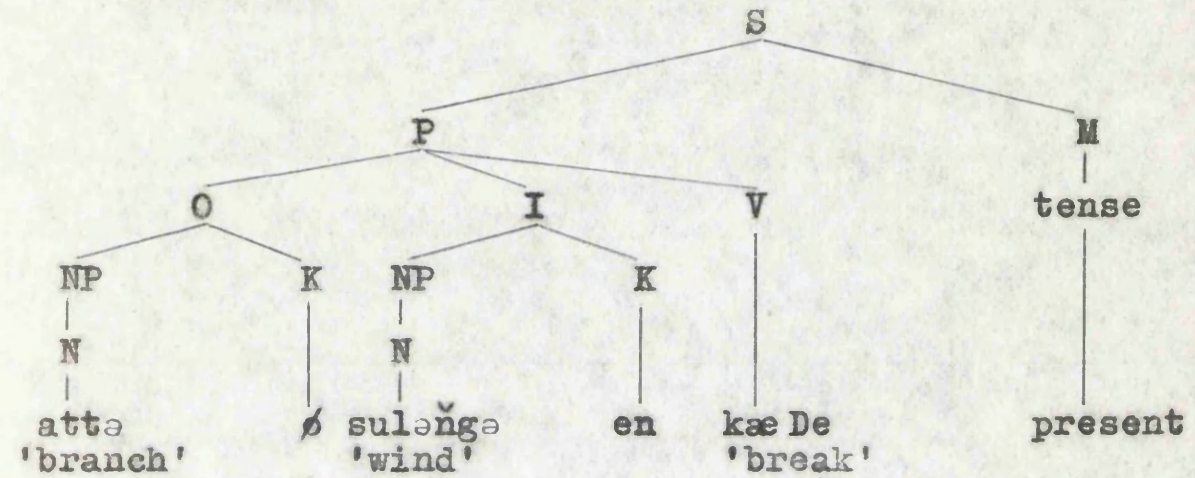

Fig. 6.3. Deep Structure of Sentence (6.7)

The rules of the subjectivalization process are applied to the O element. The verb <u>kæ Denəva</u> 'break' does not allow a surface object. The Instrumental element is realized in the instrumental case-form. The surface structure of Sentence (6.7) is represented in the following configuration.

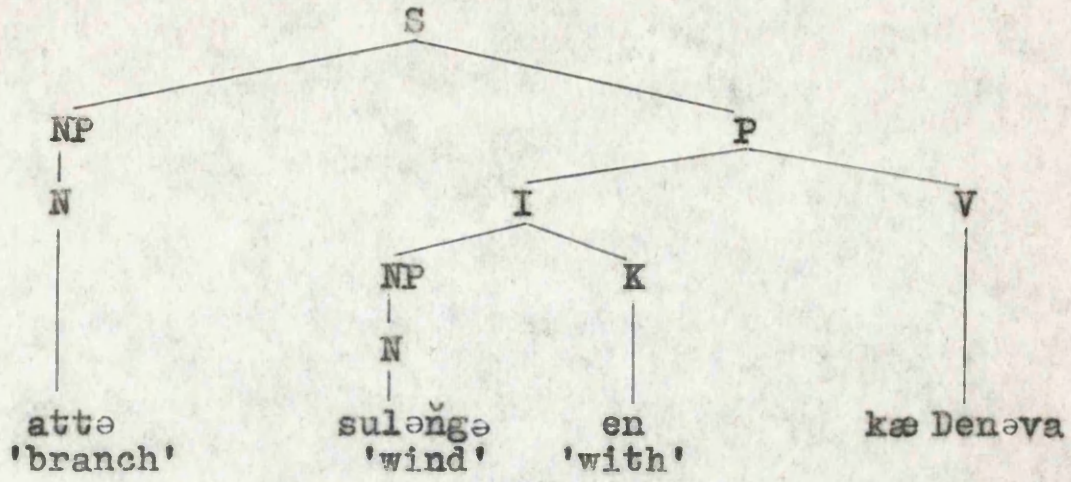

Fig. 6.4 Surface Structure of Sentence (6.7)

The case-marker of the Instrumental case can be replaced by Tə under certain conditions. It is introduced by the following optional transformational rule.

(6.9) SD. NP - NP - [en] - V
K K

SC. 1 2 [en] 3 OPT⇒
K K

1 2 [Tə] 3
K K

Condition: S does not contain an A.

The result of the application of Rule (6.9) to the case marker of the Instrumental element in Figure 6.4 is the following sentence.

(6.10) attə suləŋgəTə kæ Denəva
Nn Nd V

'The wind breaks the branch'.

The Instrumental element of Sentence (6.8) may optionally

appear in the dative case-form. Consider the following sentence:

(6.11) geval kunaaTuvəTə væ nasenəva

Nn Nd V

'The storm devastates houses.'

The verb temenəva 'get wet' is accepted into the case-frame $[\{^{O}_{D}\}$ + (I) ——]. The following sentences exemplify the occurrence of the verb temenəva 'get wet' with the specified case categories.

(6.12) redi væssen temuna (O + I + V)

Nn Ni V

'clothes' 'rain-with' 'got wet'

'The clothes got wet in the rain.'

(6.13) mahattəya væssen temuna (D + I + V)

Nn Ni V

'master' 'rain-with' 'got wet'

'The master got wet in the rain.'

The instrumental case-forms in Sentences (6.12) - (6.13) can be transformationally changed into the dative case-form by Rule (6.9). The corresponding sentences to (6.12) - (6.13) are (6.14) - (6.15).

(6.14) redi væssəTə temuna

Nn Nd V

'The clothes got wet in the rain.'

(6.15) mahattəya væssəTə temuna

Nn Nd V

'The master got wet in the rain'.

The verbs pelenəva 'suffer' and mærenəva 'die' accept Instrumentals as optional elements. The frame feature for these verbs is + [D + (I) ——]. Consider the following sentence.

(6.16) viyəlikalaapəye minissu unəroogen pelenəva

(modifier) Nn Ni V

'dry-zone in' 'people' 'fever-from' 'suffer'

'The people who are in the dry-zone suffer from fever'.

The case-frame [D + (I) ——] for these verbs meets the structural description of Rule (6.9); but the application of Rule (6.9) to the underlying structure of Sentence (6.16) generates a deviant sentence such as:

(6.17)* viyəlikalaapaye minissu unəroogəyəTə pelenəva

Nn Nd V

The generation of Sentences like (6.17) must be blocked. This can be done by the ad-hoc device of marking the verbs of this group as an exception to Rule (6.9).

6.15 The Instrumental Case and Two-place Verbs

The verbs in the following list are 'genuine' two-place verbs.

kanəva 'eat'

kirənəva 'weigh'

liyənəva 'write'

These verbs are accepted into the case-frame [A + O + I(I) ——]. Sentences (6.18) - (6.19) illustrate the occurrence of Instrumental elements with these verbs.

(6.18) gunəpaalə pææ nen saʈəhan liyənəva

Nn Ni Na V

'Gunapala' 'pen-with' 'notes' 'write'

'Gunapala is writing notes with the pen.'

(6.19) perədigə minissu atin kææmə kanəva

(modifier) Nn Ni Na V

'eastern' 'people' 'hand-with' 'food' 'eat'

'Eastern people eat food with the hand.'

If the sentence contains an Agentive argument the case marker of the Instrumental case cannot be changed into Tə. So that Rule (6.9) is not applied to the Instrumental elements of Sentences (6.18) - (6.19). Therefore, I arrive at the conclusion that the Instrumental case is realized either in the instrumental or the dative case-form only in the environment of certain one-place verbs.

6.16 The Instrumental Case and Three-place verbs

It seems almost all three-place verbs accept Instrumental arguments optionally. Rule (6.9) is not applied

to the Instrumental elements in the environment of three-place verbs because their case-frames contain an Agentive argument.

6.2 The Locative Case: Source and Goal

6.21 General linguistic theory distinguishes between static and dynamic verbs. The Locative-directional distinction is associated with the static-dynamic distinction of actions. John Lyons asserts:

> "The opposition of 'locative' and 'directional' may be regarded as a particular manifestation of a more general distinction between static and dynamic".[1]

Fillmore notes the distinction between the locational and directional elements; and he thinks that it is rather a superficial one. He states:

> "There is a certain amount of evidence, ..., that locational and directional elsments do not contrast but are superficial differences determined either by the constituent structure or by the character of the associated verb".[2]

It is clear that there is some truth in this statement. Locational elements occur with static verbs while directional elements occur with dynamic verbs. It seems,

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1. Lyons, John, Introduction to Theoretical Linguistics, Cambridge (1968), p. 300.

2. 'The Case for Case', p. 25.

however, that at the time of writing 'The Case for Case', Fillmore did not take into account the occurrence of Source elements - arguments which identify the starting point - in the environment of dynamic verbs. The distinction between the elements within directional is important in the understanding of the meaning of sentences. John Lyons says:

> "The distinction between 'to' and 'from' is a secondary distinction within 'directional'".[1]

Fillmore does not discuss explicitly the way in which the elements to and from are introduced into sentences. However, they cannot be introduced transformationally. For instance consider the following examples.

(6.20) siriseenə gaalle innəva
Nn Nl V
'Sirisena' 'Galle-in' 'is'
'Sirisena is in Galle'.

(6.21) siriseenə gaallə̆Tə yanəva
Nn Nd V
'Sirisena' 'Galle-to' 'go'
'Sirisena is going to Galle'.

(6.22) siriseenə gaallen yanəva
Nn Ni V
'Sirisena' 'Galle-from' 'go'
'Sirisena is going from Galle'.

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1. Lyons John, op. cit., p. 300.

In the first instance, we can distinguish Sentence (6.20) from Sentence (6.21) and (6.22) on the basis of static-dynamic distinction. But, how can we account for the semantic difference between Sentences (6.21) and (6.22)? Both Sentences (6.21) and (6.22) contain the same motion verb. It is worth to consider the following sentence too:

(6.23) siriseenə gaallen kolaňbəTə yanəva

Nn Ni Nd V

'Sirisena' 'Galle-from' 'Colombo-to' 'go'

'Sirisena is going from Galle to Colombo'.

This sentence contains the arguments which identify the place where the movement denoted by the verb yanəva 'go' started out and the place where it ended up. It seems that these arguments contrast. Therefore, they cannot be handled transformationally.

A verb which denotes a motion requires at least three arguments, namely an animate being or an inanimate thing which moves, where it started out and the place where it ended up. The path between the starting point and the ending point can be recognized as another argument.[1] The starting

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1. In this work, I do not undertake the description of case categories which accept post-positions that should be filled from the lexicon. They need a detailed study. The case category Path (e.g. nandəseenə kæ æ gallə harəha nuvərəTə giya. 'Nandasena went to Kandy via Kegalle'.

F/note contd. on next page.

point and the destination are labelled as Source and Goal. All motion verbs accept both Source elements and Goal elements. The suppression of the occurrence of one of these elements is a different matter.

I propose to treat both Source and Goal elements as underlying cases. Fillmore himself talks about two case categories which were labelled as Source and Goal in his later publications.[1] He uses the term Source to identify the argument that denotes the starting point. The term Goal identifies various types of arguments, namely the customer in the environment of BUY/SELL, the student in the environment of TEACH/LEARN, the defendent in the environment of the verb BLAME and the target in the environment of HIT. The case categgry Source stands for the seller in the environment of BUY/SELL, the teacher in the environment of TEACH/LEARN and

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Footnote 1 contd. from previous page

The elements which have been twice underlined constitute the case category Path) is not described here because of this reason.

1. Fillmore, Charles J. 'Types of Lexical Information', in F. Kiefer (ed.) Studies in Syntax and Semantics (1969) pp. 117, 119. Fillmore, Charles J. 'Subjects, Speakers and Roles' in Working Papers in Linguistics No. 4, pp. 32-63, Ohio State University. Fillmore has mentioned that the elements that identify where a thing that moved ended up and where it started out as rôle types. See Section 41 of this paper.

the accuser in the environment of BLAME. Moreover, Fillmore used the term Source to denote the point from which something is removed. He referred to Jeffrey Gruber and mentioned the properties of the verb DOFF. He admits that the Source element has been incorporated into the verb DOFF. There is no way of expressing the Source element when this verb is used.[1]

The innovations of case grammar which I have been referring to, show that the case grammar proposed by Fillmore in 'The Case for Case' is inadequate for handling the description of the structure of some sentences. Therefore, Fillmore postulates the case categories, Source and Goal.

I believe that the Source and Goal distinction which is associated with motion verbs is a distinction belonging to the underlying structure of sentences. Thus, it is necessary to abandon the opinion which says that the locative and directional distinction is a superficial one 'determined either by the constituent structure or by the character of the associated verb'.

Now, I shall start the description of the structure of sentences containing motion verbs with a clear understanding

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1. Fillmore, Charles, J. 'Types of Lexical Information' in F. Kiefer (ed.) Studies in Syntax and Semantics (1969) p. 119.

of the underlying differences between directional and locative elements, Source and Goal elements and static and dynamic verbs.

6.22 The verbs of the following list are motion-verbs

igillenəva	'fly'
duvənəva	'ran'
paninəva	'jump'
yanəva	'go'

These verbs accept an Agentive element because they contain the feature [+ activity]. The place from where the movement starts is Source and the place where the movement ends up is Goal. Either the Source or the Goal element can be suppressed at the surface level of sentences.

In order to denote the capability of suppressing the Source and Goal elements the parenthesis notation is used. The case-frame for the verbs in the above list is [A + (So) + (G) ——].

6.23 Realization of Source and Goal

The case category Source is realized in the instrumental case-form while the Goal element is realized in the

dative case-form.[1] Therefore, the underlying case markers of Source and Goal are specified as:

Source (So) = -en 'from'

Goal (G) = -Tə 'to'

They can be represented by the following rule.

(6.24) $$K \longrightarrow \begin{cases} en \;/\; [NP \;\_\_\;]_{So} \\ Tə \;/\; [NP \;\_\_\;]_{G} \end{cases}$$

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1. There are a number of problems associated with the realization of the Goal element. Consider the following set of sentences:

(a) (i) mahattəya gaalləTə giya
Nn Nd V

(ii) mahattəya gaalle giya
Nn Nl V

(iii) mahattəya gaalu giya
Nn N V

'The master went to Galle.'

The Goal element in these sentences has a three-way realization - namely: in the dative case-form, in the locative case-form and in the uninflected form (?) But the Goal element in the following sentence appears only in the dative case-form.

(b) akka liňdəTə giya
Nn Nd V

'(My) elder sister went to the well'.

It is very hard to find a satisfactory solution to these problems. However, it is clear that the Goal element inflected for the dative case is accepted by all motion verbs. Therefore, I hold the view that the Goal element is basically realized in the dative case-form.

6.24 The Grammar of motion verbs

The verbs of the list in Section (6.22) accept surface subjects but not surface objects. Consider the following sentences.

(6.25) kurullo gammaanen vanaantərəyaTə igillenəva

Nn Ni Nd V

'birds' 'village-from' 'forest-to' 'fly'

'The birds are flying from the village to the forest.'

(6.26) naagərikəyo nagərəyen gaməTə yanəva

Nn Ni Nd V

'city-dwellers' 'city-from' 'village-to' 'go'

'The city-dwellers are going from the city to the village.'

Sentences (6.25) - (6.26) have a common underlying structure until they reach their lexical items.

The deep structure of Sentence (6.26) is as shown in the following configuration.

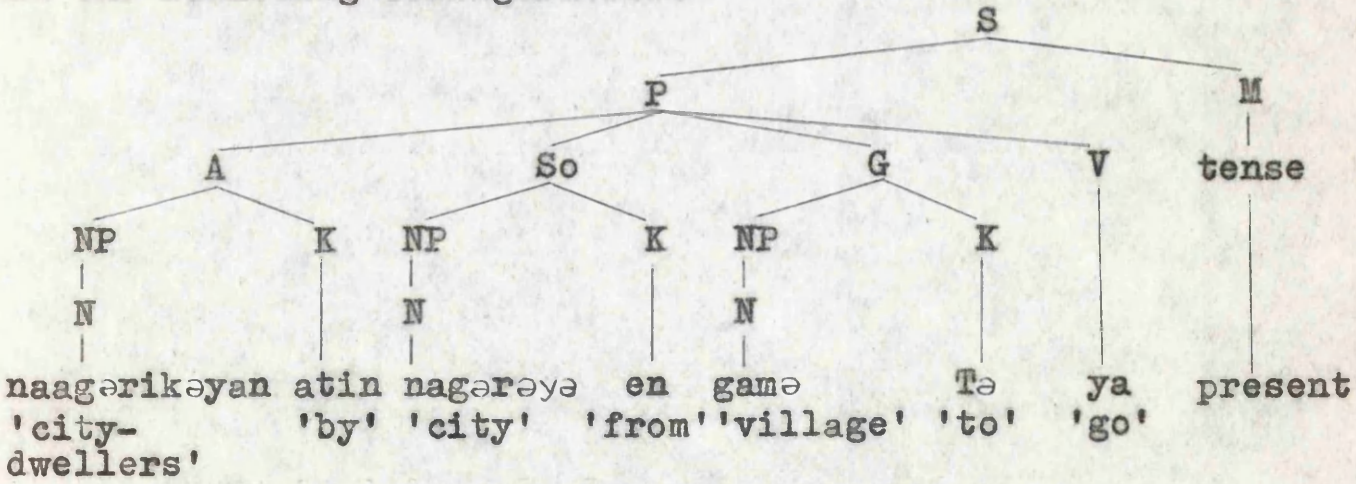

Fig. 6.5. Deep Structure of Sentence (6.26)

The rules of the subjectivalization process are applied to the Agentive element. The incorporation of the tense marker into the main verb completes the derivational process of Sentence (6.26) from its underlying structure. The surface structure of Sentence (6.26) is as shown in Figure 6.6.

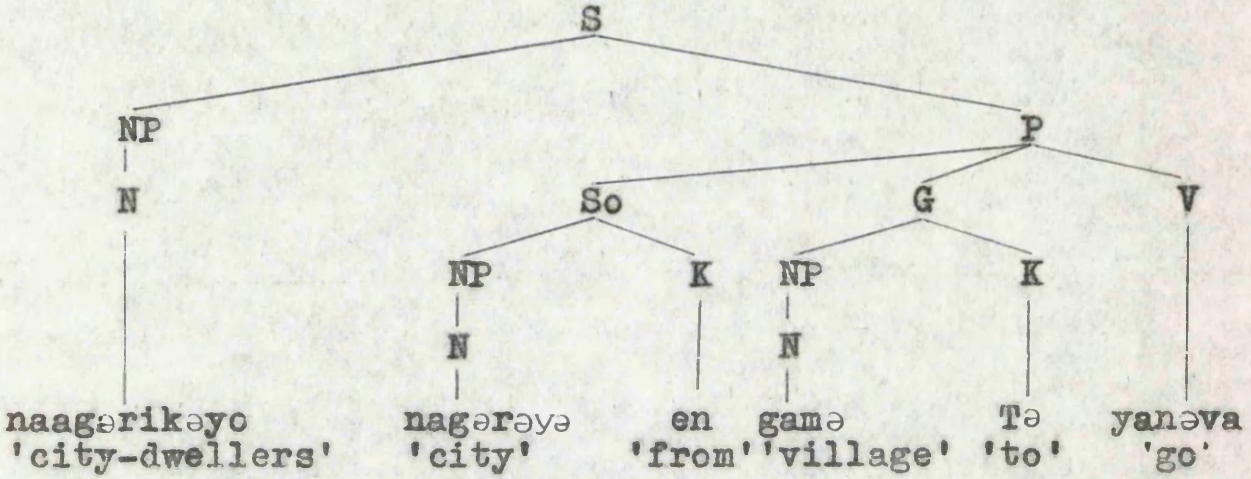

Fig. 6.6. Surface Structure of Sentence (6.26)

The verbs <u>perelenəva</u> 'tumble' and <u>væTenəva</u> 'fall' belong to the category of motion verbs. They accept the Dative or Objective element, the Source and the Goal element. The Dative or Objective element is chosen as the surface subject. These verbs do not accept surface objects. The frame feature of these verbs is specified as + [$\begin{Bmatrix} D \\ O \end{Bmatrix}$ + (So) + (G) ——]. Sometimes the Goal element does not appear in the surface structure of sentences. It has been obligatorily left

out.[1] Consider the following sentence:

(6.27) mahattəya puTuven næ giTTa

Nn Ni V

'master' 'chair-from' 'got up'

'The master got up from the chair.'

The verb næ giTinəva 'get up' is treated as a motion verb. The Goal element cannot be overtly indicated in the environment of the verb næ giTinəva 'get up'.

The verb avədivenəva 'wake' is another verb of this type. Consider the following sentence:

(6.28) daruva ninden avədi vuna

Nn Ni V

'child' 'sleep-from' 'woke'

'The child woke up.'

Sentence (6.28) contains a Source element - ninden 'sleep-from', but not a Goal element.

6.25 The following list contains motion verbs which are

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1. A Goal element cannot be inserted into Sentence (6.27). In such instances, it is possible to state that the Goal element is a part of the meaning of the verb. Fillmore stated: "Sometimes an argument is obligatorily left out of the surface structure because it is subsumed as a part of the meaning of the predicate". 'Types of Lexical Information' in F. Kiefer (ed.) Studies in Syntax and Semantics (1969) p. 119.

insertable into the case frame [A + O + (So) + (G) ——].

gannəva 'take'

geenəva 'bring'

damənəva 'drop'

The case-frame of these verbs satisfy necessary conditions for passivization. In the 'normal' choice of subject, the subjectivalization rule is applied to the Agentive element. The Objective element is selected as the surface object. Consider the following sentence:

(6.29) akka potak raakken atəTə gatta

Nn Na Ni Nd V

'elder sister' 'book-a' 'shelf-from' 'hand-to' 'took'

'(My) elder sister took a book into her hand from the shelf.'

Sentence (6.29) contains all case categories specified in the case-frame + [A + O + (So) + (G) ——]. Both Source and Goal elements can be suppressed. Consider the following sentences:

(6.30) akka potak raakken gatta

Nn Na Ni V

'(My) elder sister took a book from the shelf.'

(6.31) akka potak atəTə gatta

Nn Na Nd V

'(My) elder sister took a book into her hand.'

(6.32) akka potak gatta

Nn Na V

'(My) elder sister took a book.'

Sentence (6.30) lacks a Goal element while Sentence (6.31) lacks a Source element. Sentence (6.32) lacks both Source and Goal. Yet they are acceptable sentences.

6.3 The Locative and the Time Case outside the Nucleus

6.31 I have previously described the nature of Locative and Time cases which lie within the nuclear portion of sentences.[1] Therefore, I devote this brief discussion to the examination of Locative and Time cases outside the nuclear portion of sentences.

One of the characteristic features of these cases is that they occur freely with a large number of verb types. Noam Chomsky used the term 'VP Complement' to denote this particular kind of prepositional phrase in English, and he stated that they do not hold a direct connection with the main verb of sentences in which they occur. In fact, they

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1. Chapter 4 above, pp. 121-124

modify the whole Verb Phrase or perhaps the entire sentence.[1]

A certain amount of evidence has been advanced to substantiate the idea that certain constituents outside the nuclear portion of a sentence are introduced by some kind of super-ordinate sentence.[2]

How can we recognize extra-nuclear portions of Sinhalese sentences? Is there any formal criterion?

John Lyons suggested a device that can be employed to distinguish between the nuclear and extra-nuclear constituents of a sentence. He stated that those constituents which can be removed from a sentence without affecting the syntactic nature of the rest of the sentence are extra-nuclear.[3]

In Sinhalese, it is possible to employ another device to determine extra-nuclear portions of sentences. It works well in connection with Locative case. The particular devise which I have in mind is the investigating of the possibility of using the particle di immediately after the Locative case.

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1. Aspects, p. 101.

2. Lakoff, George. 'Pronominalization, Negation and the Analysis of Adverbs' in Jacobs Rederick A & Peter S. Rosenbaum (eds.) Readings in English Transformational Grammar (1970) pp. 145-165. Specially pp. 154-157.

3. See above Chapter 4 pp. 94-95

Consider the following sentences:

(6.33) vanəsattu vanaantəre innəva

Nn Nl V

'wild animals' 'jungle-in' 'live'

'Wild animals live in the jungle.'

(6.34) pol laNkaave væ venəva

Nn Nl V

'coconuts' 'Ceylon-in' 'grow'

'Coconuts grow in Ceylon.'

The Locative elements - vanaantəre 'jungle-in' and laNkaave 'Ceylon in' - of Sentences (6.33) - (6.34) are inside the nuclear portion. They do not accept the particle di. Therefore the following sonstructions are unacceptable.

(6.35)* vanəsattu vanaantəre di innəva

(6.36)* pol laNkaave di væ venəva

The following sentence contains a two-place verb - kiyəvənəva 'read'.

(6.37) sisyəyo pustəkaale pot kiyəvənəva

Nn Nl Na V

'students' 'library-in' 'books' 'read'

'Students read books in the library.'

The Locative element in Sentence (6.37) - pustəkaale 'library in' - is outside the nuclear portion and it modifies the whole sentence. The particle di can be posited after

the Locative case element. For instance

(6.38) sisyəyo pustəkaale di pot kiyəvənəva

'Students read books in the library.'

The Locative elements of the following sentences are obviously outside the nuclear portion.

(6.39)	saraccandrə	japaanəye	di	potak	livva
	Nn	Nl	p.	Na	V
	'Saratchandra'	'Japan-in'		'book-a'	'wrote'

'Saratchandra wrote a book in Japan'.

(6.40)	mamə	kolənbə	di	mahaacaaryəvərəya	hamuvenəva
	Nn	Nl	p	Na	V
	'I'	'Colombo - at'		'professor'	'meet'

'I meet the professor at Colombo.'

6.32 The Time Case

The occurrence of the case 'Time' in the nuclear portion of sentences is very limited. A type of sentence in which there is a Time argument in the nuclear portion was described in Chapter 4 Section 4.37.

It seems that there are a number of aspects of the Time argument. For instance consider the following sentences.

(6.41) kamkaruvo pæyə aTak væDəkərənəva

'Labourers work for eight hours (a day).'

(6.42) siitə irtuve himə væTenəva

'Snow falls in the winter.'

These sentences contain Time elements, but they are functionally different. The Time element in Sentence (6.41) denotes duration while in Sentence (6.42) it denotes the time or period at which the process denoted by the verb takes place. At this point I shall concentrate on the type of Time case illustrated by Sentence (6.42). Usually it appears in the locative case-form.[1]

The Time element of the kind illustrated by Sentences (6.42) optionally accepts the particle di, and it is an extranuclear constituent. Consider the following example:

(6.43) siitə irtuve di himə væTenəva

Nl p Nn V

'Snow falls in the winter.'

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1. Consider the Time arguments in the following sentences
   (a) katoolikəyo iridaTə palli yanəva
   'Catholics go to church on Sundays.'
   (b) iskoole ude aTəTə paTan gannəva
   'The school starts at 8 a.m.'
   The Time arguments in (a) and (b) sentences appear in the dative case-form.
   (c) mahattəya saňduda koləňbə yanəva
   'The master will be going to Colombo on Monday.'
   The Time argument in Sentence (c) does not have an overt case marker. The Time elements in Sentences (a) - (c) do not accept the particle di. This phenomenon can be treated as an ideosyncratic feature of the Time argument. However, temporal element deserves a detailed study. This thesis contains a description of one aspect of the case category 'Time'.

Sentences (6.42) and (6.43) are semantically equivalent.

The following sentence contains a Time element - ekdaasnəvəsiyə hættæ æ pahee 'in 1975'.

(6.44) aanDuvə ekdaasnəvəsiyə hættæ æ pahee
Nn Nl
'government' '1975-in'
mæ tivərənəyak pavatvənəva
Na V
'election-a' 'hold'
'The government will hold an election in 1975.'

The case category Time which is inflected to the locative case-form accepts the particle di freely. Consider the following sentence.

(6.45) aanDuvə ekdaasnəvəsiyə hættæ æ pahee di mæ tivərənə yak pavatvənəva
'The government will hold an election in 1975.'

If the facts revealed by the present discussion are acceptable, the insertion of the particle di immediately after the Locative and Time case categories can be utilized as a test to determine whether the Locative and Time elements are inside the nuclear portion of sentences or not.

6.33 George Lakoff[1] attempted to formulate the base structure of sentences containing extra-nuclear Locative and Time elements. His description contains plausible facts. The transformational rules involved in the derivation of sentences containing extra-nuclear Locative and Time elements and the way in which they are applied to the complex underlying structures are still to be investigated.

Now, I return to one of the basic principles of case grammar. That is "each case relationship occurs only once in a simple sentence".[2]

Paying special attention to this principle, consider the structure of Sentence (6.46).

(6.46) vandənaakaarəyo anuraadəpuree di elimahane

	Nn	Nl	p	Nl
	'pilgrims'	'Anuradapura-at'		'open-air-in'

nidaagannəva

V

'sleep'

'The pilgrims sleep in the open air at Anuradhapura.'

Sentence (6.46) contains two Locative elements - anuraadəpure 'Anuradapura-at' and elimahane 'open-air-in' -

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1. Lakoff, George, op. cit.

2. 'The Case for Case', p. 21.

each inflected to the locative case-form. It is obvious that they are not conjoined case elements. According to the above mentioned basic principle of case grammar each case relationship occurs only once in a simple sentence. In order to account for the structure of Sentence (6.46) either this principle must be relaxed or Sentence (6.46) must be treated as a complex sentence. I shall treat Sentence (6.46) as a complex sentence in which there is no trace of an embedded sentence at the surface level.

The Locative element anuraadəpuree di 'Anuradapura-at' of Sentence (6.46) is an extranuclear constituent, and it should be introduced from a superordinate sentence.[1]

6.4 Summary

The present discussion shows that the case-frame of pirenəva 'fill', [I + L ——] has some strange features. The subjectivalization rule can be applied either to the Instrumental or to the Locative element. The Instrumental element in the environment of other verbs are treated as optional.

In order to account for the grammar of motion verbs,

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1. Fillmore accepts the possibility of introducing sentence adverbials from superordinate sentences. See 'The Case for Case', p. 23, footnote 29.

the case categories, Source and Goal are essential. The Time and Locative case categories which modify the whole sentence or the whole Verb Phrase must be introduced from some kind of super-ordinate sentence.

CHAPTER 7

CAUSATIVIZATION

7.0 Introduction

In this Chapter, I intend to concentrate upon the causative constructions. In their derivational process a number of intricate grammatical rules are called into play. I recognize a causative construction as a complex sentence type resulting from a particular kind of sentence embedding. I call this process causativization.

Fillmore has postulated two sentence embedding rules, namely O → S and NP → N(S). The first of them is adequate to deal with causative constructions. Therefore I utilize it in the present grammatical description.

7.1 Problem

There is an apparent relationship between the sentences of the following paradigm.

(7.1) (a) sattu mæ renəva

Nn V

'Animals die'

(b) daDəyaNkaruvo satun marənəva

Nn Na V

'hunters' 'animals' 'kill'

'Hunters kill animals'

(c) goviyo daDəyaNkaruvan lavva satun marəvənəva

Nn N pp Na V

'farmers' 'hunters' 'animals' 'kill'

'Farmers get hunters to kill animals'.

The relationship between these sentences can be superficially explained using the traditional terms subject and predicate. Sentence (7.1)(b) contains Sentence (7.1)(a) as its 'predicate' with appropriate phonological changes, while Sentence (7.1)(c) contains Sentence (7.1)(b) as its 'predicate' with similar changes. This characteristic feature is an over-all pattern in Sinhalese.

7.2 Possible Solutions

There are, at least, two devices to relate the sentences in paradigm (7.1), on condition that we drop the idea of treating the verbs of those sentences as independent lexical items.

(i) Fillmore: According to the view of Fillmore advocated in 'The Case for Case', it is possible to postulate an abstract verb which is common to sentences (7.1)(a) - (7.1)(c). The case categories which occur with it are Agentive and

Dative. The Dative element is obligatory while the Agentive element is optional. It can be represented as:

mæ renəva 'die' +[(A) + D ——]

The verb mæ renəva 'die' is treated as the abstract form. This device accounts for the relationship between sentences (7.1)(a) and (7.1)(b). In order to relate Sentence (7.1)(c) to (7.1)(a) and (7.1)(b), it is necessary to extend the case-frame as [(A) + (A) + D ——]. Such a case-fframe is unacceptable in case grammar as it contains two identical case categories. I have previously discussed the inadequacies of the proposed device in the specification of case-frames.[1]

(ii) George Lakoff: The relationship between sentences such as those in the above paradigm has been accounted for by Lakoff by postulating a causative pro-verb and a number of transformational rules.[2] His proposal says that the verbs like marənəva 'kill' are a result of causativization. It seems that the same device can be extended to capture the relationship between (7.1)(a) - (7.1)(b) and (7.1)(c).

Because of the convincing nature of the device of George Lakoff, I propose to adapt it in the process of relating sentences (7.1)(a) - (7.1)(c).

7.21 Some Features of Related Verbs

At the outset, by way of elucidation, I am going to state some facts about verb forms. The verbs in Sentences

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1. See above Chapter 3, Section 3.9.

2. Lakoff, George, Irregularity in Syntax (1970) Holt, Rinehert and Wonston Inc., pp. 41-43, 91-98.

(7.1)(a) - (7.1)(c) constitute a set.

mæ renəva	'die'
marənəva	'kill'
marəvənəva	'Cause NP to kill'

The members of this set have a common base form which is mæ re 'die'. Furthermore, the members of each set of verbs are related to each other semantically. The phonological changes of the verbs show the syntactic environment in which they occur. In other words, the syntactic facts have been registered in the verb-forms.

The verb mæ renəva 'die' in Sentence (7.1)(a) is a one-place verb, marənəva 'kill' is a two-place verb, while marəvənəva 'cause NP to kill' is a three place verb. This information shows that the gradual development of syntactic features among the members of this set of verbs is a systematic one; and I name the particular feature which changes the syntactic nature of each verb as [causative].

I treat the verb mæ renəva 'die' as the base form. The verb marənəva 'kill' and marəvənəva 'cause NP to kill' are formed by introducing the feature [causative] into the base form. Therefore they seem to be the results of a phenomenon such as:

$$\begin{bmatrix} \text{mæ renəva} \\ \text{die} \\ +\ \text{causative} \end{bmatrix} \longrightarrow \text{marənəva 'kill'}$$

$$\begin{bmatrix} \underline{\text{marənəva}} \\ \text{'kill'} \\ + \text{ causative} \end{bmatrix} \rightarrow \underline{\text{marəvənəva}} \text{ 'Cause NP to kill'}$$

The formation of causative verbs in this way can be investigated in other sets of Sinhalese verbs. For instance, consider the following sets of verbs.

A. <u>kæ Denəva</u> 'break'	B. <u>væ Tenəva</u> 'fall'	= one-place verb.
<u>kaDənəva</u> 'cause to break'	<u>vaTTənəva</u> 'drop'	= Two-place verb.
<u>kaDəvənəva</u> 'Cause NP to break NP'	<u>vaTTəvənəva</u> 'Cause to drop'	= Three-place verb.

Some sets of verbs have only two forms.[1]

C. <u>aňDənəva</u> 'cry'	D. <u>duvənəva</u> 'run'	= One-place verb
<u>aňDəvənəva</u> 'make to cry'	<u>duvəvənəva</u> 'make to run'	= Two-place/ Three-place verb.

In order to relate the members of each verb paradigm through the feature [causative], I accept the idea of postulating an <u>abstract causative verb</u>.

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1. The underlying factor for the difference in the number of forms in sets of verbs is a phonological one. If the base form of a particular set of verbs contains front vowels, that set has three forms. If the base form contains back vowels it has only two forms. (Consider above Groups C and D). The second form of Groups C and D are used as a two-place verb as well as a three-place verb in appropriate syntactic environments. (See pp. 75-6, 79, 86-88)

7.22 Abstract Causative Verb

The abstract causative verb belongs to the deep grammar. A grammar which utilizes the abstract causative verb must contain a rule which has the effect of incorporating it as a feature into a verb which has lexical realization. It should be mentioned that the verbs containing the feature [+ adjectival] do not function as the locus for the [+ causative] feature.

The case-frame for the abstract causative verb contains at least two case categories - Agentive and Objective. Therefore, it can be represented as:

(7.2) Abstract causative +[A + O ——]

The Objective element which occurs in the case frame for the abstract causative verb must be a sentence. So, the abstract causative verb automatically indicates that the sentence which contains it is a complex sentence.

Those sentences whose grammar is described by means of postulating the abstract causative verb contain no trace of sentence embedding.

Somehow, a linguistic investigation aiming at the construction of a unified grammar which achieves simplicity should recognize Sentences (7.1)(b) and (7.1)(c) above as complex sentences at the deep level. It can be accomplished by postulating an abstract causative verb.

7.23 Classification of Causatives

The causative constructions in Sinhalese fall into two categories: namely-

(i) Primary Causative

(ii) Secondary Causative

It should be borne in mind that this distinction is not a very sharp one.

(i) Primary Causative.
The effect of the Primary Causative is to change a one-place verb into a two-place verb. In other words, the Primary Causative process makes an 'intransitive' verb a 'transitive' verb. For instance, the one-place verb mæ renəva 'die' is transformed into marənəva 'kill' which is a two-place verb through the application of the Primary Causative process. The two-place verbs which were formed in this way behave in the same way as 'genuine' two-place verbs.

(ii) Secondary Causative:-
The effect of the Secondary Causative process is to change all two-place verbs ('genuine' two-place verbs and derived two-place verbs) into three-place verbs and 'genuine' three-place verbs into four-place verbs etc. Presumably, Secondary Causative is recursive.

I state that Sentence (7.1)(b) is the result of Primary Causativization; while Sentence (7.1)(c) is the cumulative result of the consecutive operation of Primary Causativization and Secondary Causativization. On the basis of these assumptions, I shall present the grammatical description of the sentences in paradigm (7.1).

7.24 Rules of Sentence Embedding

Fillmore has briefly stated some facts about sentence embedding. He has proposed two sentence embedding rules. One of them is to treat a sentence as a part of a noun phrase (NP $\rightarrow$ N(S)). This rule is adequate to deal with relative clauses and alienable possessive constructions. The other sentence embedding rule is O $\rightarrow$ S.

The embedded sentence in the environment of the causative verb is obligatory and it is a complement. These special features must be mentioned in the grammar. The sentence embedding rule, O $\rightarrow$ S proposed by Fillmore is satisfactory and adequate to this purpose. This rule shows that the sentence embedded under O, is a case category. Therefore, I use this rule in this thesis without any alteration.

7.3 Primary Causative

I have already described the structure of Sentence (7.1)(a) type.[1] In order to facilitate the present discussion, I shall repeat here the underlying structure and the superficial structure of Sentence (7.1)(a). The underlying structure of Sentence (7.1)(a) is depicted in Figure 7.1.

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1. Chapter 4, see 4.33, pp. 109-112

It contains the verb mæ renəva 'die' which is accepted into the case-frame [D ——].

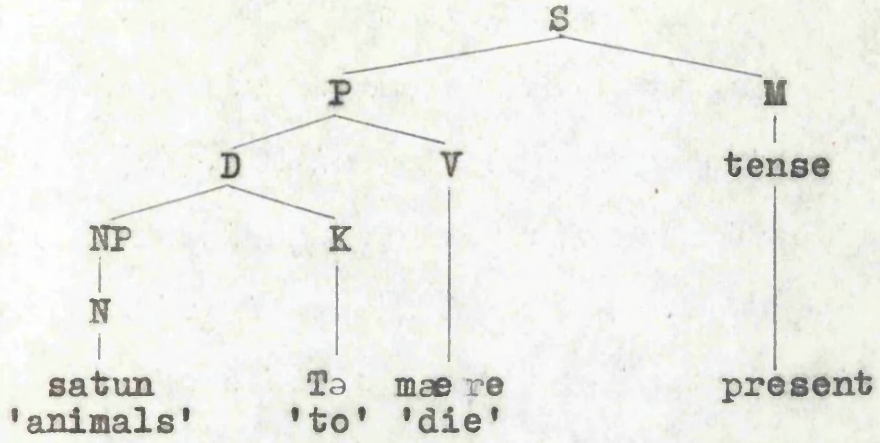

Fig. 7.1. Deep Structure of Sentence (7.1)(a)

The deep structure of Sentence (7.1)(a) is converted into its surface structure by the application of the subjectivalization rule to the D element and the incorporation of the tense element into the V element. The eventual result is shown in Figure 7.2.

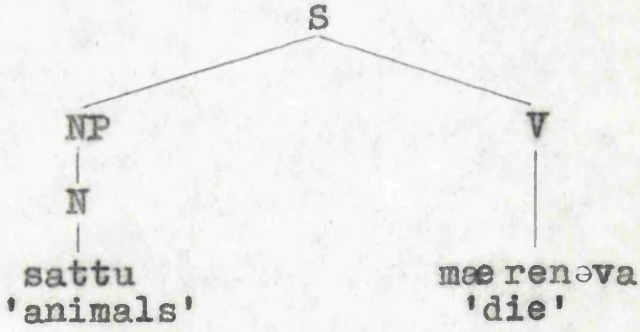

Fig. 7.2. Surface Structure of Sentence (7.1)(a)

It is assumed that Sentence (7.1)(b) contains two sentences in its deep structure configuration. The matrix sentence contains the abstract causative verb. The lower

sentence is embedded under the case category O. The underlying structure of Sentence (7.1)(b) is as shown in Figure 7.3.

One of the necessary conditions of causative constructions is that the tense marker of the embedded sentence and the matrix sentence be identical.

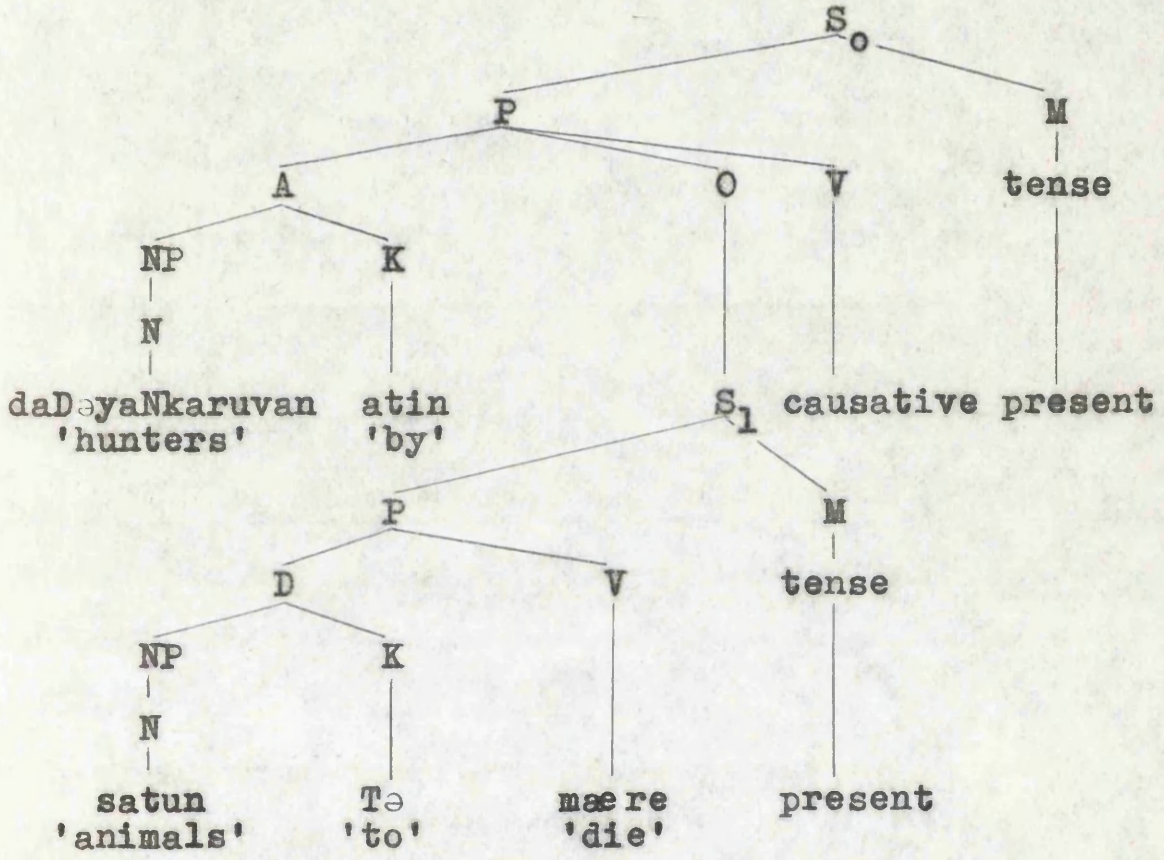

Fig. 7.3. Deep Structure of Sentence (7.1)(b)

The transformational process of converting the abstract structure in Figure 7.3 is extremely complicated. All lexical items in the embedded sentence must be

'raised'[1] into the containing sentence. Eventually subjectivalization and objectivalization rules are applied.

The application of grammatical rules is started from the lowest sentence. The tense marker of the lowest sentence in Figure 7.3 is deleted under the condition of identity; and it yields the structure represented in Figure 7.4.

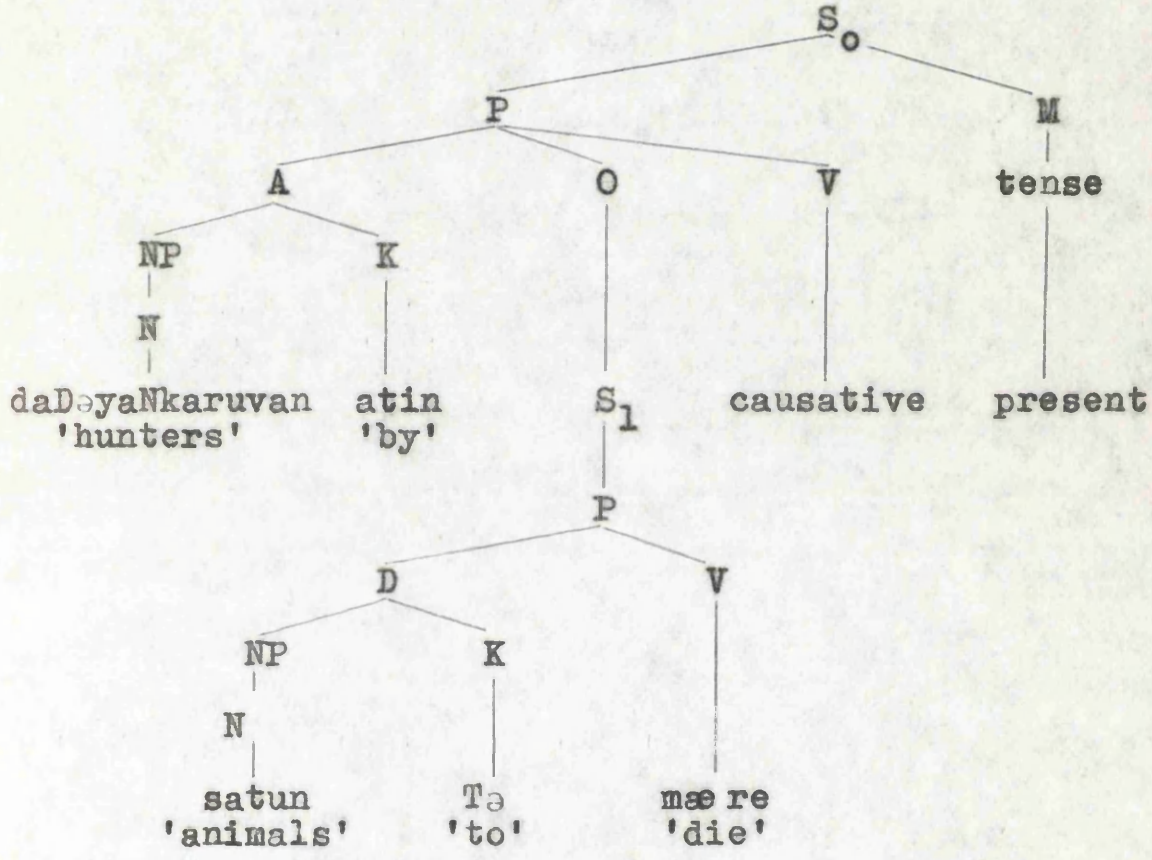

Fig. 7.4. Deletion of the Tense Marker of S_1

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1. 'Raising' is a transformational process which has the effect of lifting lexical items from the embedded sentence into the matrix sentence. See Kiparsky & Kiparsky, 'Fact' in Manfred Bierwisch and Karl Erich Heidolph (eds.), Recent Developments in Linguistics specially pp. 160-161.

At this stage of the derivation of Sentence (7.1)(b), the grammar must contain a transformational rule which has the effect of raising the verb of the lowest sentence and adjoining it to the verb of the next higher sentence. Such a rule is required because the main verb of the lowest sentence which has an independant lexical realization functions as the locus of the abstract causative verb of the higher sentence. After the application of this transformation, the V node of the lowest sentence must be deleted to give the structure depicted in Figure 7.5.

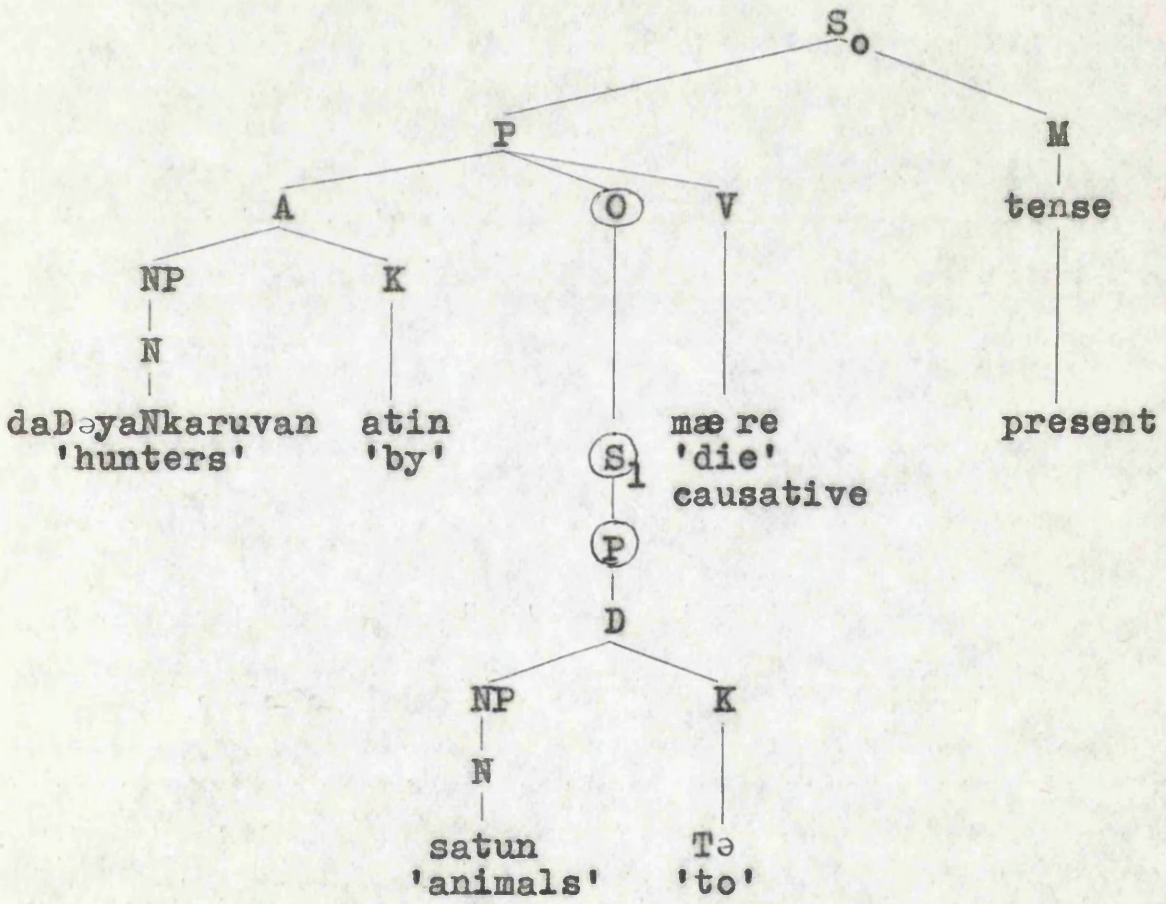

Fig. 7.5. Verb raising and the Deletion of the V node of S_1

I noted previously that the abstract causative predicate lacks a lexical realization in Sinhalese; but it is realized as a lexical feature of one-place, two-place and three-place verbs. Therefore, in order to obtain the surface realization of the V node in Figure 7.5, the abstract causative verb must be demoted to the status of a lexical feature, namely [+ causative]. Now, $\begin{bmatrix} \text{mæ re} \\ \text{'die'} \\ \text{+ causative} \end{bmatrix}$ must be lexicalized as mara 'kill'. This shows that the formation of a causative verb is productive in Sinhalese.

Now, it is necessary to raise the case categories of the embedded sentence into the propositional constituent of the matrix sentence.

Figure 7.5 shows that the embedded sentence contains only one case category, namely D. It is automatically raised to the level of the propositional constituent of the containing sentence by deleting the circled symbols O, S and P in Figure 7.5. This process is carried out not by an ordered rule of grammar, but by a general principle of the theory of grammar.[1] After raising the verb the embedded sentence does not contain

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1. See Ross, John Robert, 'A Proposed Rule of Tree-Pruning' in David A. Reibel and Sanford A. Schane (eds.) Modern Studies in English: Readings in Transformational Grammar (1969) Prentice-Hall, pp. 288-299.

a V node. Consequently, the remaining elements of the embedded sentence do not constitute a proposition. Therefore, the circled symbols O, S and P of the configuration in Figure 7.5 must be removed.

The result of the application of these rules to the configuration in Figure 7.5 is represented in Figure 7.6.

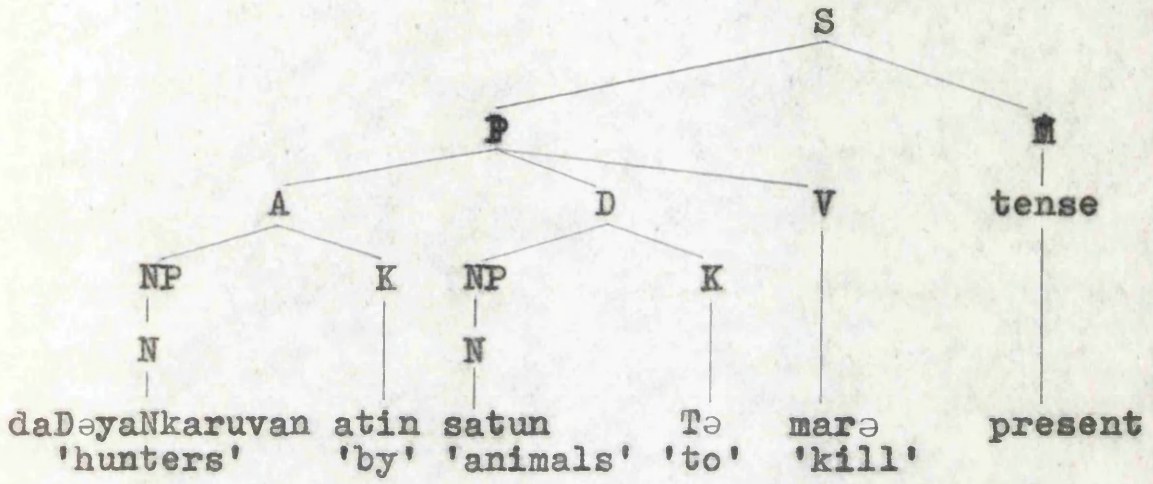

Fig. 7.6. Deletion of Categories O, S_1 and P.

Now, it is obvious that the verb <u>marənəva</u> 'kill' is a lexical item which has been formed by introducing the feature [+ causative] into the basic form <u>mærenəva</u> 'die'. It is possible to specify a case-frame for a 'derived' verb as we did for 'genuine' (non-causative) two-place verbs and three place verbs. Therefore the case-frame for the verb <u>marənəva</u> 'kill' is [A + D ——]. The categories to which the rules of subjectivalization and objectivalization are applied are readily specified by the case-frames for these derived verbs.

The case category A of the highest sentence is selected as the 'surface subject' in 'normal' sentences. If the embedded sentence has a single case category, it is selected as the 'surface object'. The surface structure of Sentence (7.1)(b) is depicted in Figure 7.7.

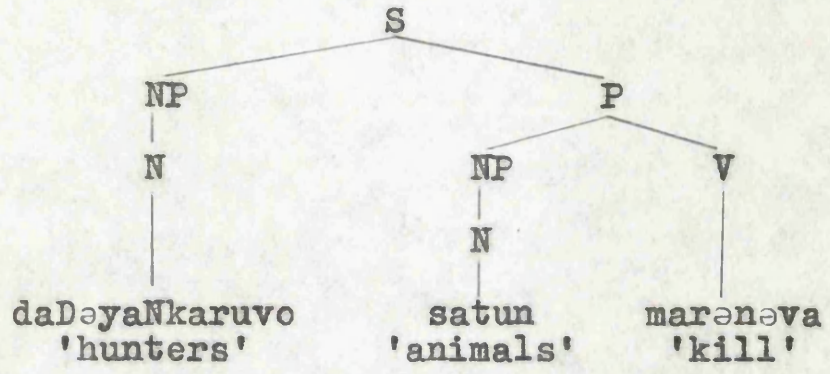

Fig. 7.7. Surface Structure of Sentence (7.1)(b)

Causative verbs satisfy necessary conditions for passivization.

The passive version of Sentence (7.1)(b) is

(7.3) sattu daDəyaNkaruvan atin mæ renəva

Nn N pp V

'animals' 'hunters' 'by' 'are killed'

'Animals are killed by the hunters'.

In the process of passivization, the D element is selected to appear as the 'surface subject'; while the A element appears as a constituent of the proposition. The surface structure of Sentence (7.3) is diagrammed in Figure 7.8.

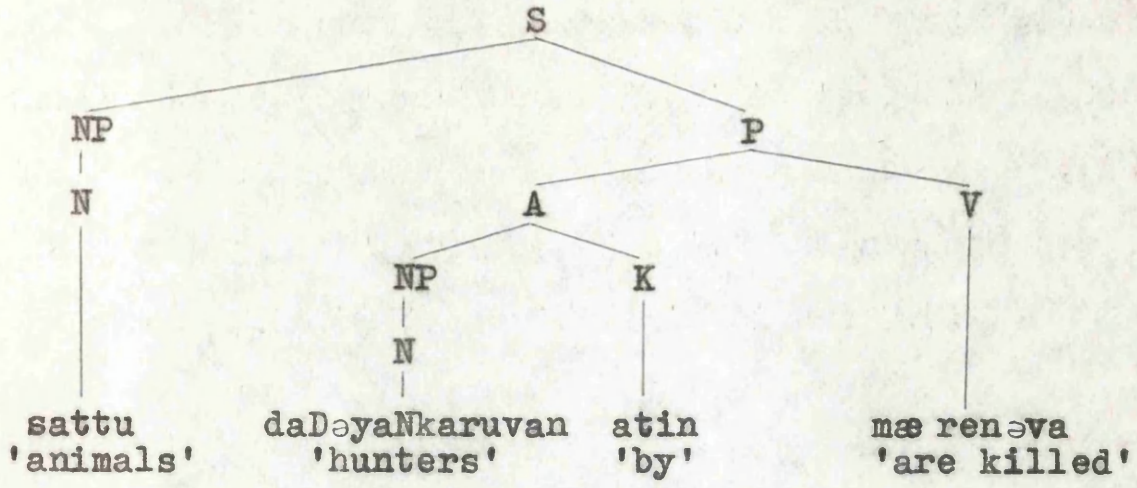

Fig.7.8. Surface Structure of Sentence 3.

7.4 Secondary Causative

Sentence (7.1)(c) is an example of Secondary causative. Its derivational process is similar to that of Sentence (7.1)(b). The only difference between Sentences (7.1)(b) and (7.1)(c) is that Sentence (7.1)(b) contains only one embedded sentence while sentence (7.1)(c) contains two embedded sentences. The deep structure of Sentence (7.1)(c)-

goviyo	daDəyaNkaruvan	lavva	satun	marəvənəva
Nn	N	pp.	Na	V

'The farmers get the hunters to kill animals' - is schematized in Figure 7.9.

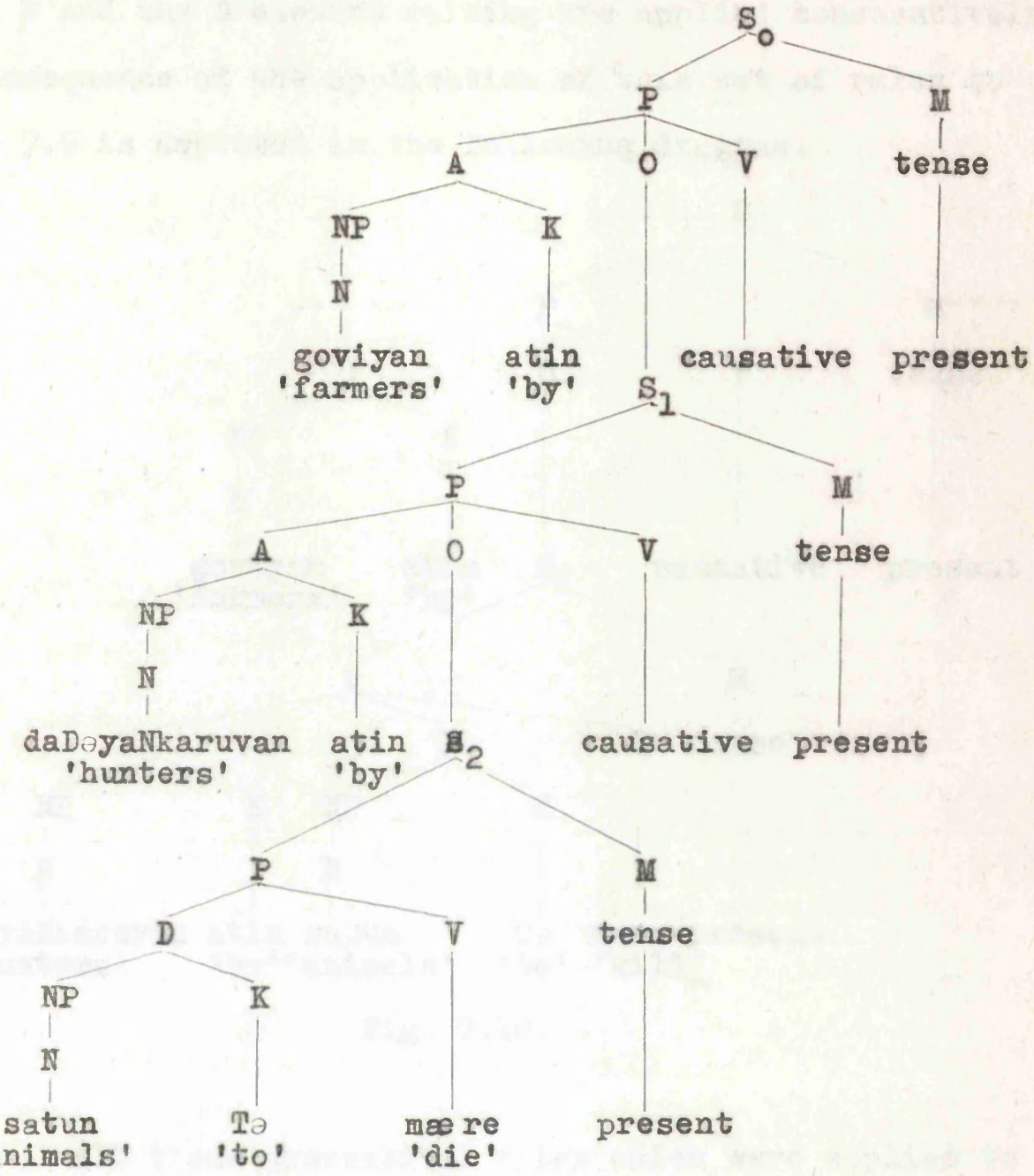

Fig. 7.9. Deep Structure of Sentence (7.1)(c).

The application of grammatical rules is started from the lowest sentence. The rules of Tense-Deletion, verb raising, causative feature Introduction, the Deletion of O,

S_2 and P and the D element raising are applied consecutively. The consequence of the application of this set of rules to Figure 7.9 is depicted in the following diagram.

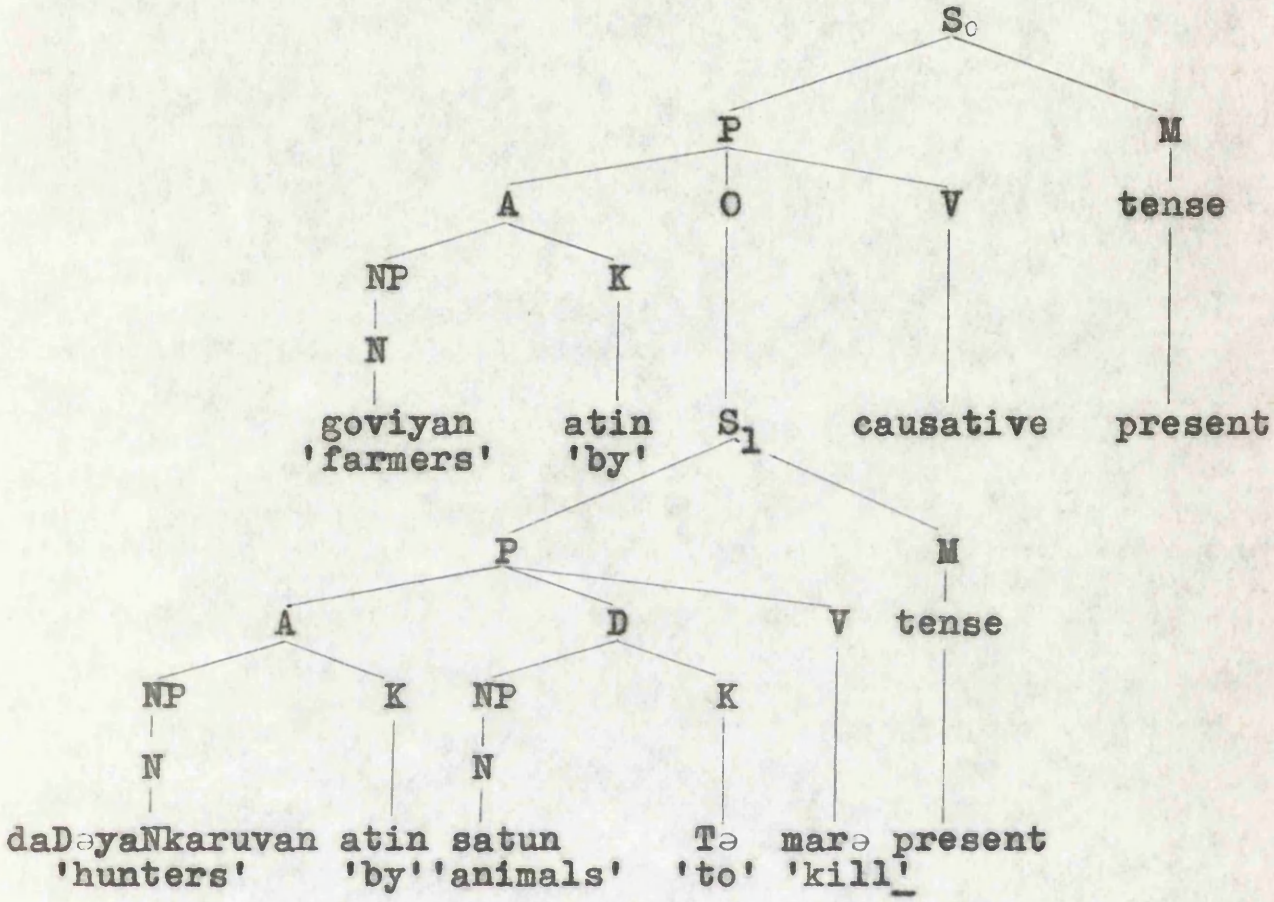

Fig. 7.10.

All those grammatical rules which were applied to S_2 in Figure 7.9 must be applied to S_1 in Figure 7.10. This time, $\left[\begin{array}{l}\underline{\text{marə}} \\ \underline{\text{kill}} \\ \text{+ causative}\end{array}\right]$ must be lexicalized as <u>marəvə</u> 'cause NP to kill'. The final consequence of this process is represented in Figure 7.11.

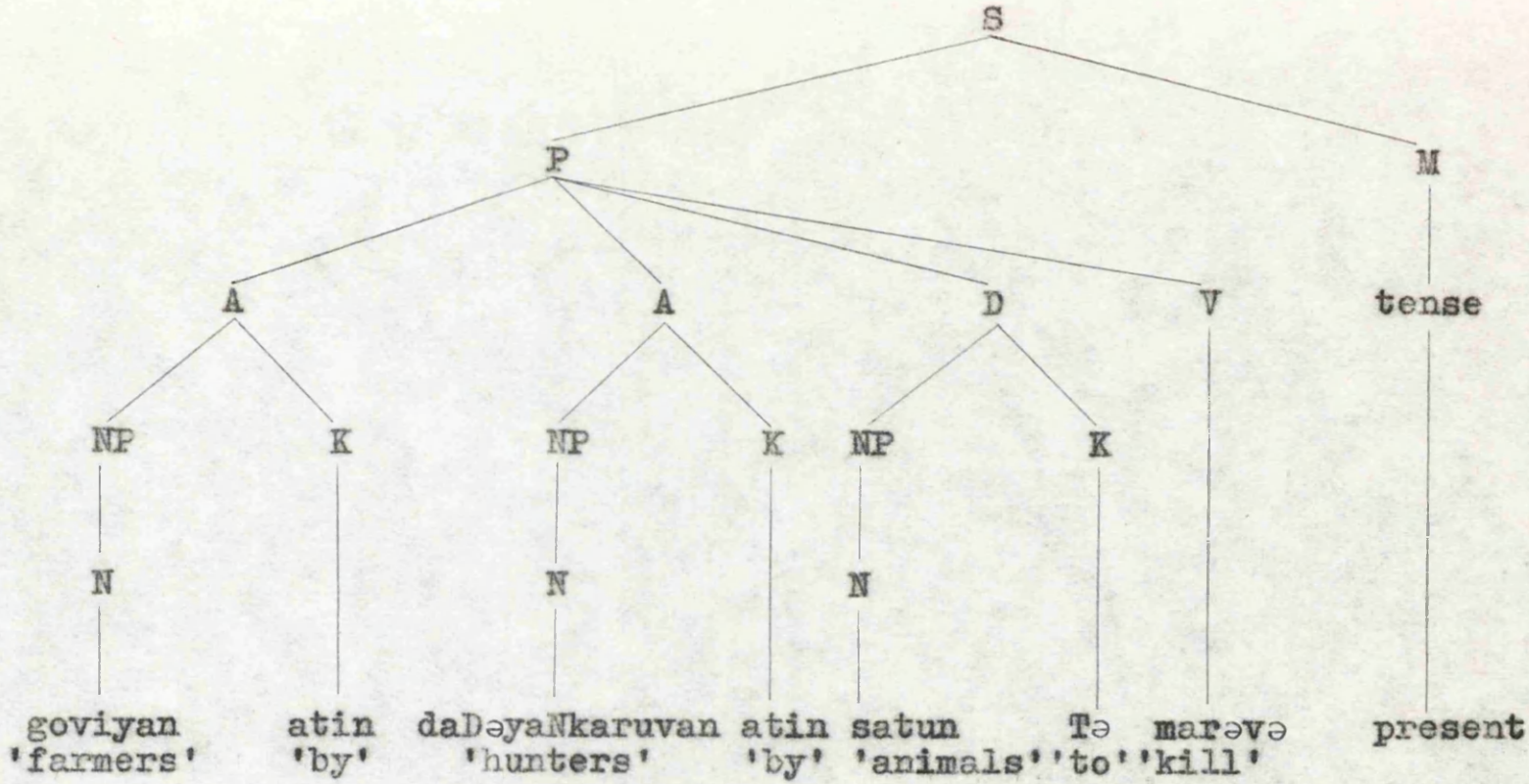
S
P
M
A
A
D
V
tense
NP
K
NP
K
NP
K
N
N
N
goviyan
'farmers'
atin
'by'
daDəyaNkaruvan
'hunters'
atin
'by'
satun
'animals'
Tə
'to'
marəvə
'kill'
present

Fig. 7.11.

It is possible to specify a case-frame for the derived verb <u>marəvənəva</u> 'cause NP to kill' as [A + A + D ——]. This case-frame contains two Agentive elements and it denotes that the sentence generated by inserting a verb into it is a complex sentence. The subjectivalization rule is applied to the first A element. (It is the Agentive element of the highest sentence). The objectivalization rule is applied to the D element. The case marker of the second Agentive element is replaced by <u>lavva</u> 'by'. The 'case marker' <u>lavva</u> 'by' occurs only in secondary causative sentences.

The construction depicted in Figure 7.11 is converted into its surface structure by the consecutive application of rules of subjectivalization, objectivalization, the case marker replacement and the incorporation of the tense marker into the main verb.

The surface structure of Sentence (7.1)(c) is depicted in Figure 7.12.

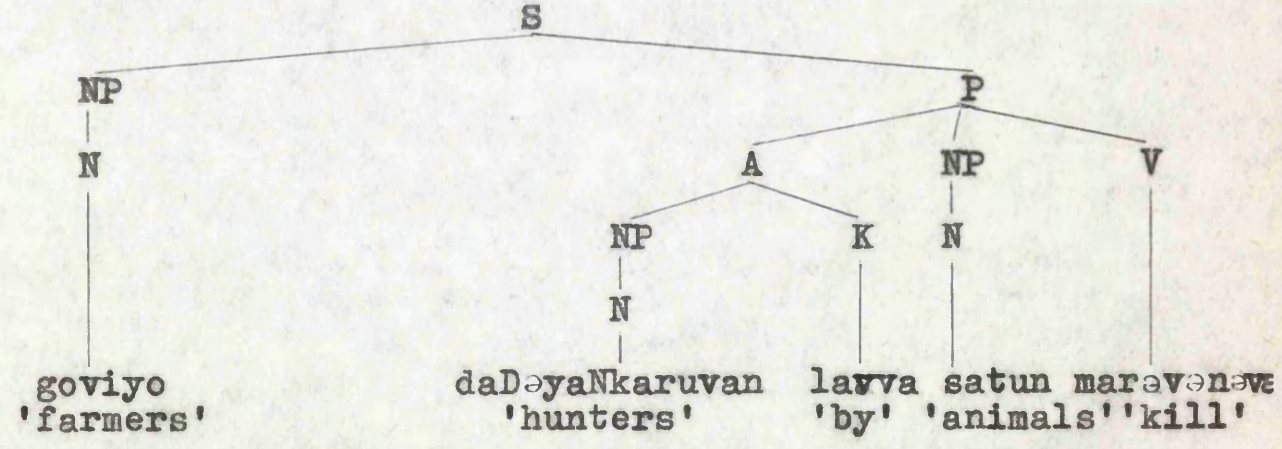

Fig. 7.12. Surface Structure of Stentence (7.1)(c)

Sentence (7.1)(c) has a passive version

(7.4) sattu goviyan atin daDəyaNkaruvan lavva
Nn N pp Na particle
'animals' 'farmers' 'by' 'hunters' 'by'
mæ rəvenəva
' V
'kill'

In order to get construction (7.4), the subject-ivalization rule must be applied to the D element in the configuration in Figure 7.11.

7.5 kanəva 'eat' type verbs.

The verbs kanəva 'eat'
bonəva 'drink'
ahanəva 'listen' are accepted into the case-frame [A + O ——]. The causative constructions which contain these verbs have a different phenomenon from that which I have described in Section 7.4. For instance consider the following paradigm of sentences.

(7.5) daruva bat kanəva
Nn Na V
'the child' 'rice' 'eat'
'The child eats rice'

(b) amma daruvaTə bat kavənəva

Nn Nd Na V

'mother' 'the child-to' rice 'feed'

'The mother feeds the child rice'.

(c) taatta amma lavva daruvaTə bat

Nn N pp Nd Na

'father' mother 'by' 'the child-to' 'rice'

kavənəva

V

'feed'

'The father gets the mother to feed the child rice'.

Sentence (7.5)(b) and (7.5)(c) are causative. They have a different feature - which is grammatically significant - from those causative sentences described in Sections 7.3 and 7.4. That is, the Agentive element of the lowest sentence appears in the dative form in the causative construction. What is the reason for such a phenomenon?

Can we conjecture that, at least in the environment of certain verbs, some case categories of the embedded sentence change their syntactic-semantic relations in the process of Causativization? It seems that the Agentive element which occurs with the verbs kanəva 'eat' bonəva 'drink' and ahanəva 'listen' assume the function of the Dative element when it is embedded in a sentence which has the abstract causative verb

as its main verb. The verb kavənəva 'feed' which is the causative of kanəva 'eat', conceptually requires a Dative element. (The behaviour of this verb (kavənəva 'feed') is similar to that of denəva 'give'). Therefore, a Dative element in the environment of kavənəva 'feed' can be semantically justified.

The grammar of Sentence (7.5) is easily describable. So I turn to Sentence (7.5)(b). The deep structure of Sentence (7.5)(b) is depicted in Figure 7.13.

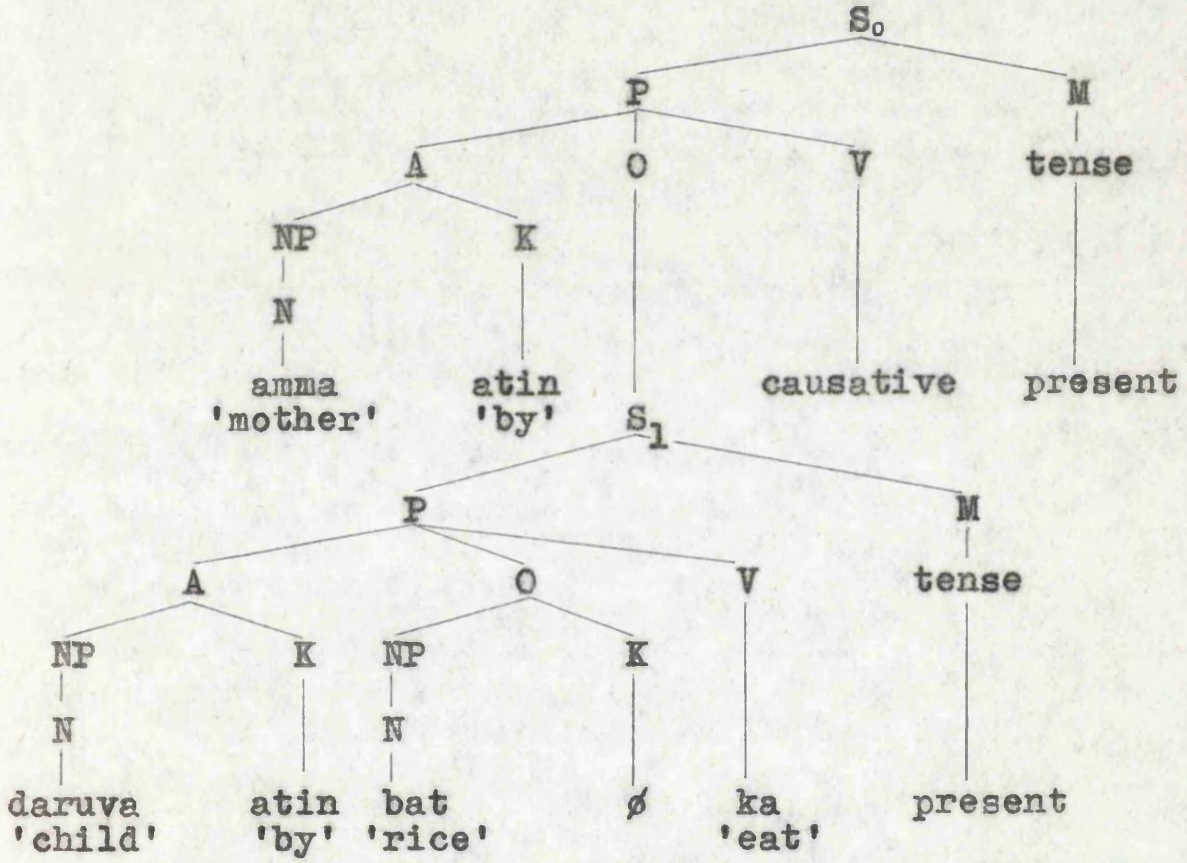

Fig. 7.13. Deep Structure of Sentence (7.5)(b).

The transformational rules, Tense deletion, Verb raising, and the process of raising the case categories of the embedded sentence into the containing sentence convert the underlying structure of Sentence (7.5) into the construction represented in Figure 7.14.

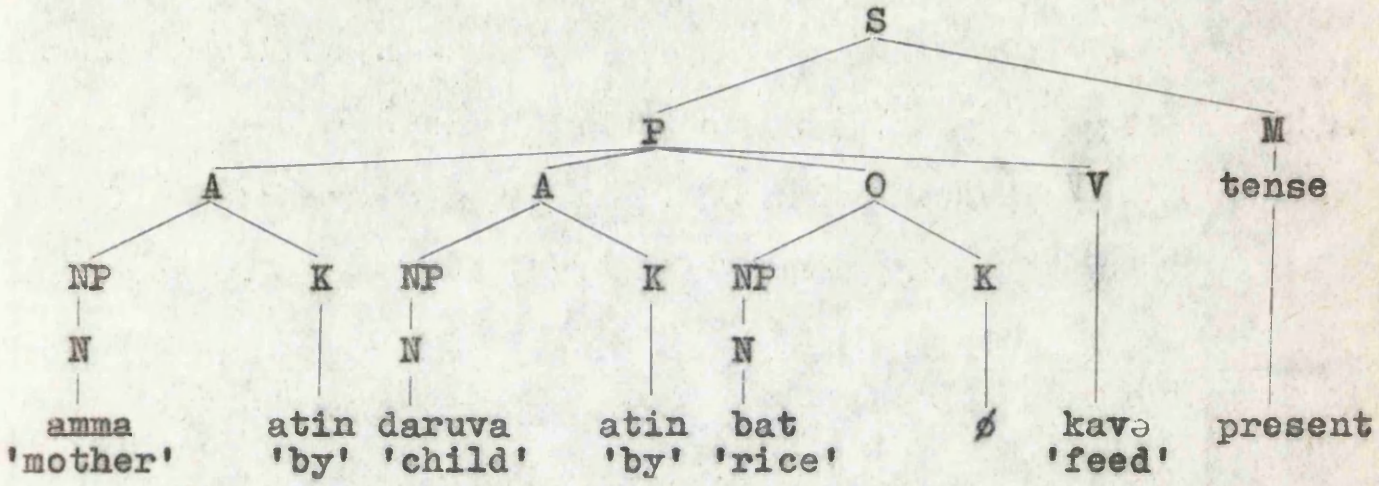

Fig. 7.14

Now, a problem arises which is difficult to solve. How can one formalize the fact that the case category A which was 'raised' from the embedded sentence assumes the function of a D? The only solution that I can offer to this problem is to formalize a somewhat ad-hoc rule of the following kind.

(7.6) SD. NP - K - $[_{A}$NP - $_{K}[\underline{atin}]_{K}]_{A}$ - NP - K - V - M

SC. 1 2 $_{A}[_{N}$ $_{K}[\underline{atin}]_{K}]_{A}$ 3 4 5 6

1 2 $_{D}[_{N}$ $_{K}[\underline{Tə}\ ]_{K}]_{D}$ 3 4 5 6 $\overset{OBL}{\Longrightarrow}$

Condition: S contains a <u>kavənəva</u> 'feed' type verb.

After the application of Rule (7.6) to the construction in Figure 7.14 the subjectivalization and objectivalization rules must be applied. In the process of the 'unmarked' subject choice the A element is selected as the 'surface subject', the O element appears as the 'surface object', and the D element is realized in the dative case-form.

The surface structure of Sentence (7.5)(b) amma daruvaṯə bat kavənəva 'The mother feeds the child rice' is depicted in Figure 7.15.

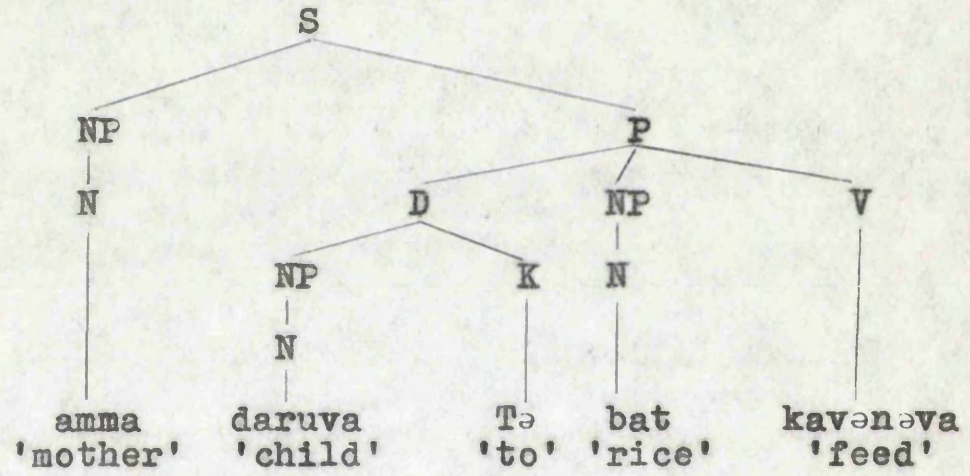

Fig. 7.15. Surface Structure of Sentence (7.5)(b)

The verb dannəva 'know' behaves in the same manner as the verb kanəva 'eat' in the process of causativization. It is accepted into the case-frame [D + O ——].

Consider the following paradigm of sentences.

(7.7) (a) mahattəya prəvurtiyə dannəva

Nn Na V

'master' 'news' 'know'

'The master knows the news'.

(b) laməya mahattəyaTə prəvurtiyə dannənəva

Nn Nd Na V

'child' 'master-to' 'news' 'informs'

'The child informs the master of the news'.

(c) piyəseenə laməya lavva mahattəyaTə

Nn Na pprticle Nd

'Piyasena' 'the child' 'master-to'

prəvurtiyə dannənəva

Na V

'news' 'inform'

'Piyasena gets the child to inform the master of the news'.

In the generation of Sentence (7.7)(b), Rule (7.6) is not applied because the embedded sentence does not meet the structural description of the rule. (The embedded sentence contains a Dative element instead of an Agentive element).

7.6 The Verb peenəva 'catch sight of'.

The verb peenəva 'catch sight of' is a non-volitional verb;[1] and it is accepted into the case-frame [D + O ——].

1. The grammar of non-volitional verbs. See Chapter 8 below.

The D element is realized in the dative case-form while the O element is realized in the nominative case-form.

Perhaps, peenəva 'see' is the only non-volitional verb upon which Causativization is operated. Consider the following sentences:

(7.8) (a) maTə haňdə peenəva

Nd Nn V

'me-to' 'the moon' 'catch sight of'.

'I catch sight of the moon'.

(b) akka maTə haňdə pennənəva

Nn Nd Na V

'elder sister' 'me-to' 'the moon' 'show'

'(My) elder sister shows me the moon'.

(c) amma akka lavva maTə haňdə pennənəva

Nn Na pp Nd Na V

'mother' 'elder sister' 'me-to' 'the moon' 'cause to show'

'(My) mother gets the elder sister to show me the moon'.

I describe Sentence (7.8)(a) as non-causative. (7.8)(b) is the result of the operation of the Primary Causative.[1] The operation of the Secondary causative upon

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1. Sentences (7.5)(b), (7.7)(b) and (7.8)(b) can be treated as a special kind of Primary Causative. The effect of the

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the structure containing the deep structure of Sentence (7.8) (b) as an embedded sentence generates Sentence (7.8)(c).

7.7 'Double rôle' types

Fillmore draws the reader's attention to the possibility of recognizing two types of rôles simultaneously in a single noun-phrase at least in the environment of verbs such as:[1]

LEARN : TEACH

BUY : SELL

Consider the following Sinhalese examples:

(7.9) gunəratnə piyəseenəgen itihaasəyə igenəgannəva

Nn Ni Na V

'Gunaratna' 'Piyasena-from' 'history' 'learn'

'Gunaratna learns history from Piyasena'.

Footnote 1 contd. from previous page

Primary Causative is to change/one-place verb into a two-place verb. In this case, the Primary Causativization has changed a two-place verb into a three-place verb which is insertable into the case-frame [A + D + O ——]. The post position lavva 'by' is not introduced. Therefore, I consider these sentences are results of the operation of the Primary Causativization.

1. Fillmore, Charles J., 'Types of Lexical Information' in F. Kiefer (ed.) Studies in Syntax and Semantics (1969) pp. 117-118.

(7.10) piyəseenə gunəratnəTə itihaasəyə uganvənəva

Nn Nd Na V

'Piyasena' 'Gunaratna-to' 'history' 'teach'

'Piyasena teaches history to Gunaratna".

Sentences (7.9) and (7.10) are synonymous; nevertheless they are grammatically different. Fillmore says that the verbs LEARN and TEACH describe the same situation but each of these verbs emphasizes the contribution of different participants to the event. That is to say, the verb igenəgannəva 'learn' emphasizes the 'student's' contribution to the event, while the verb uganvənəva 'teach' emphasizes the 'teacher's' contribution to the event. In order to account for the difference (and the relation) between the verbs such as LEARN and TEACH, Fillmore proposes to recognize 'double rôle' types. He says that there is a 'source (of good or knowledge) and a Goal' in the environment of LEARN and TEACH or BUY and SELL. (In this context the case category Source identifies the 'teacher' or the 'merchant' and the Goal identifies the 'student' or the 'customer'). Fillmore states: 'when the Source is simultaneously the Agent, one uses SELL and TEACH; when the Goal is simultaneously the Agent we use BUY and LEARN'.[1] According to this proposal the noun-phrase gunəratnə

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1. Ibid., p. 117.

'Gunaratna' of Sentence (7.9) plays the Goal rôle as well as the Agentive rôle, while in Sentence (7.10) it plays the Goal rôle only. The noun-phrase piyaseenə 'Piyasena' plays the Source rôle in Sentence (7.9) while it plays the Source rôle as well as the Agentive rôle in Sentence (7.10). It seems that this is a some sort of explanation to the relationship between Sentences (7.9) - (7.10). Nevertheless, it must be mentioned all these suggestions are unformalized. Fillmore does not discuss the practical difficulties arising in the formalization of double rôle types.

Now, it should be asked 'why it is necessary to set up 'double rôles'?' Fillmore does not give a very convincing answer to this question. I think, the only reason for setting up 'double rôles' is to account for the relationship between BUY/SELL type verbs.

However, I propose to abandon the idea of recognizing 'double rôles'. The basic reason for my proposal is that the verbs LEARN and BUY can be treated as non-causative while TEACH and SELL can be treated as causative.

I assume that Sentences (7.9) - (7.10) are synonymous nevertheless they are grammatically different.[1] Therefore

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1. Jerrold J. Katz shows the problems involved in this type of sentence. According to his explanation the sentences containing the verbs BUY and SELL cannot be

F/note contd. on next page

they must be kept apart, and their grammar must be studied separately. At this point, I ignore Sentence (7.9) and I begin my discussion from Sentence (7.10).

Compare Sentence (7.10) with Sentence (7.5)(b). The structure of Sentence (7.10) is exactly parallel to that of Sentence (7.5)(b). Therefore, I call Sentence (7.10) a Primary Causative construction. The verb uganvənəva 'teach' is a causative verb-form. It contains the following elements.

ROOT		CAUSATIVE INFIX		TENSEMARKER
ugAn 'learn'	+	və	+	nəva

The non-causative counterpart of uganvənəva 'teach' in spoken Sinhalese is igenəgannəva 'learn'. Written Sinhalese has the form ugəni 'learn'. The difference between the forms igenəgannəva 'learn' and ugəni 'learn' is a matter of surface detail.

Footnote 1 contd. from previous page

derived from the same underlying structure. In order to derive these sentences from the same underlying structure, it is necessary to choose one of these verbs as the base-form. Katz states that there is no reason for choosing one as the base-form that is not at the same time also a reason for choosing the other as the base-form. Therefore he suggests that the solution that can be offered to the problem is a semantic one.
See Jerrold, J. Katz, 'Recent Issues in Semantic Theory' in Foundations of Language 3 (1967) pp. 171-173.

Now, we can easily notice the relationship between the forms

ugəni 'learn'

uganvayi 'teach'

They have a common root form; namely: {ugAn}'learn'. Their relationship can be represented as:

[ugəni 'learn' + causative] → uganvənəva 'teach'

Along these lines, I shall set up the following paradigm of Sentences which is parallel to paradigm (7.5).

(7.11) (a) gunəratnə itihaasəyə igenəgannəva

Nn Na V

'Gunaratna' 'history' 'learn'

'Gunaratna learns history'.

(b) piyəseenə gunəratnəTə itihaasəyə uganvənəva

Nn Nd Na V

'Piyasena' 'Gunaratna-to' 'history' 'teach'

'Piyasena teaches history to Gunaratna'.

(c) mahattəya piyəseenə lavva gunəratnəTə

Nn N pp. Nd

'master' 'Piyasena' 'by' 'Gunaratna-to'

itihaasəyə uganvənəva

Na V

'history' 'teach'

'The master gets Piyasena to teach history to Gunaratna'.

This description shows that the verb igenəgannəva 'learn' (written Sinhalese = ugəni 'learn') is a verb of kanəva 'eat' type. The grammatical rules set up for the generation of sentences in paradigm (7.5) are called into play to generate sentences in paradigm (7.11).

The gannəva 'buy'/vikunənəva 'sell' pair is also described in this way. Consider the following set of sentences

(7.12) (a) gæmiya redi gannəva

Nn Na V

'the villager' 'cloths' 'buy'

'The villager buys cloths'.

(b) laməya gæmiyaTə redi vikunənəva

Nn Nd Na V

'the boy' 'the villager-to' 'cloths' 'sell'

'The boy sells cloths to the villager'.

(c) mudalaali laməya lavva gæmiyaTə

Nn N pp. Nd

'the merchant' 'the boy by' 'the villager-to'

redi vikunəvənəva

Na V

'cloths' 'sell'

'The merchant gets the boy to sell cloths to the villager'.

The (a) sentences in paradigms (7.11) and (7.12) are non-causative, the (b) sentences are primary causative and the (c) sentences are secondary causative.

Now, Sentence (7.9) and

(7.13) gæmiya mudəlaaligen redi gannəva

Nn Ni Na V

the villager 'the merchant-from' 'cloths' 'buy'

'The villager buys cloths from the merchant'.

await an explanation. I propose not to mix up Sentences (7.9) and (7.13) with the sentences in paradigms (7.11) and (7.12). In order to give a satisfactory description to Sentences (7.9) and (7.13) I draw attention to Section 6.25 of this thesis.[1] The verbs igenəgannəva 'learn' and gannəva 'buy' of Sentences (7.9) and (7.13) are similar to the verbs 'TAKE, 'BRING' and 'DROP'. They are transitive 'motion' verbs. The verbs LEARN and BUY denote the act of 'obtaining' knowledge and goods respectively. Therefore the verbs igenəgannəva 'learn' and gannəva 'buy' are accepted into the case-frame [A + O + (So) + (G) ——]. Sentences (7.9) and (7.13) lack a Goal element. According to this description the noun phrases piyəseenəgen 'Piyasena-from' and mudəlaaligen 'the merchant-from' of Sentences (7.9) and (7.13) are Source elements.

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1. See above Chapter 6, pp.192-194

This discussion shows that the verbs igenəgannəva 'learn' and gannəva 'buy' receive two types of treatment. In Sentences (7.9) and (7.13) they are 'motion' verbs while in Sentences (7.11)(a) and (7.12)(a) they are kanəva 'eat' type verbs.

Now, it is clear that the relation between the pairs of verbs such as LEARN and TEACH or BUY and SELL can be readily explained in a systematic way along the lines that I have been proposing. Because of these reasons I propose to abandon the idea of recognizing 'double rôle' types.

7.8 More Examples of the Operation of Causativization

The sentences of the following paradigms can be related to each other through Primary Causativization.

(7.14) (a) dorə æ renəva
Nn V
'The door opens'.

(b) seevəkəya dorə arinəva
Nn Na V
'The servant 'the door 'open'
'The servant opens the door'.

(7.15) (a) puTuvə kæ Denəva
Nn V
'The chair collapses'.

(b) vaDuva puTuvə kaDənəva
Nn Na V
'the carpenter' 'the chair' 'break'

(7.16) (a) balla burənəva
Nn V
'The dog barks'.

(b) laməya balla burəvənəva
Nn Na V
'the child 'the dog' 'make bark'
'The child makes the dog bark'.

Similar examples are legion. The verbs ahanəva 'hear' kanəva 'eat' bonəva 'drink' and dannəva 'know' are two-place verbs, and they constitute a minor group of two-place verbs on which the Primary Causativization is operated.

The relationship between the sentences of the following paradigm should be accounted for by the Secondary Causativization.

(7.18) (a) malli liyumak liyənəva
Nn Na V
'younger brother' 'letter-a' 'writes'
'My younger brother writes a letter'.

(b) akka malli ləvva liyumak
Nn N pp. Na
'elder sister' 'younger-brother' 'by' 'letter-a'
liyəvənəva
V
'make to write'
'My elder sister gets the younger brother to write a letter'.

The verb liyənəva 'write' obligatorily takes two arguments. It becomes a three place verb - liyəvənəva 'cause to write' - by the application of the Secondary Causativization. The Primary Causativization does not operate upon the sentences which contain two-place verbs except on those which I pointed out in Sections 7.5 and 7.6.

7.9 Summary

I have been attempting, in this Chapter, to formalize the grammar of causative sentences. Some of the theoretical problems involved in this process have not been resolved; and they are wide open for further discussion. However, the problem raised in this Chapter is a significant one. Any satisfactory solution offered for it in the way proposed here or in some other way is certainly going to be a contribution to the theory of language.

CHAPTER 8

THE GRAMMAR OF NON-VOLITIONAL VERBS

8.0 Introduction

This Chapter is devoted to the discussion of the grammar of [- volitional] verbs.

In the foregoing Chapters, I described the grammar of some verbs which accept Agentive elements. All these verbs can be defined as [+ volitional] verbs. I am going to show in this Chapter that all [+ volitional] verbs have [- volitional] counterparts. These forms ([+ volitional] and [- volitional]) constitute a pair.

The verbs ahanəva 'listen'/æhenəva 'hear' and balənəva 'look'/peenəva 'see' represent such pairs. The semantic distinction between these pairs of verbs is minimal.[1]

8.1 The Problem

Consider the differences between the (a) and (b) sentences in the following paradigms:.

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1. The sentences discussed here are of a type similar to those traditionally called impersonal pattern.

(8.1) (a) balla burənəva

Nn V

'The dog barks'. (purposive)

(b) ballaTə birenəva

Nd V

'dog-to' 'bark'

'The dog let out a bark'. (accidental)

(8.2) (a) daruva aňDənəva

Nn V

'The child cries'. (purposive)

(b) daruvaTə æňDenəva

Nd V

'child-to' 'cry'

'The child breaks out crying' (accidental)

(8.3) (a) taatta nidənəva

Nn V

(My) 'father' 'sleeps' (purposive)

(b) taattaTə nindəyanəva

Nd V

'father-to' 'sleep'

'(My) father drops off to sleep' (accidental)

(8.4) (a) laməya pintuurə balənəva

Nn Na V

'child' 'pictures' 'look'

'The child looks at the pictures' (purposive)

(b) laməɣaTə pintuurə { bæ lenəva / peenəva

Nd Nn V

'child-to' 'pictures' see

'The child catches the sight of pictures'. (accidental)

(8.5) (a) lamaɣi pæ læ æ Ti paagənəva

Nn Na V

'children' 'plants' 'trample'

'The children trample the plants down'. (purposive)

(b) laməɣinTə pæ læ æ Ti pæ æ genəva

Nd Na V

'children-to' 'plants' 'trample'

'The children trample the plants down'. (accidental)

The most obvious defining features of the differences between the (a) and (b) sentences above are phonological and semantic. The nominal element which functions as the 'surface subject' of the (a) sentences appears in the nominative case-form, while the corresponding nominal in the (b) sentences appears in the dative case-form. And, moreover, there is a significant phonological difference between the verbs in the (a) sentences and the (b) sentences in each paradigm.

What is the underlying cause for these differences?

In the first instance, it can be explained in terms of the meaning of the sentences. Each (a) sentence in the above paradigms denotes the purposive action of the agent

involved, while each (b) sentence denotes the accidental or involuntary action.. Most native speakers of Sinhalese distinguish between these actions. So, I contend that the semantic descriptions of (a) sentences and (b) sentences are different from each other. The immediate consequence of this is to postulate two different underlying structures for the (a) and the (b) sentences of each paradigm.

8.2 The Syntactic feature [volitional]

8.21 It is accepted that a lexical item is a complex symbol, and that it can be decomposed into basic elements. These basic elements constitute a set. The presence or the absence of at least one element in a lexical item has the effect of differentiating it from other lexical items. Suppose that two lexical items x_1 and x_2 have a number of elements in common. But they are different from each other by the presence of the F element in x_1 and the absence of the same element in x_2.

In fact, such a phenomenon exists in Sentences (a) and (b) in each paradigm above. The verb burənəva 'bark' (purposive action) and birenəva 'barks' (accidental or involuntory action) or ahanəva 'listen' and æhenəva 'hear' have a number of semantic elements in common. They differ from each other by a single semantic feature which I call

<volitional>. Its syntactic correlate is presented as [volitional]. It is treated as a binary feature. The presence of this feature, [+ volitional] or the absence of it, [- volitional] should be indicated in connection with some Sinhalese verbs.

The [+ volitional] feature is treated as unmarked, while the [- volitional] feature is marked.

All the grammatical differences between (a) and (b) sentences in paradigms (8.1) through (8.5) stem from the presence or the absence of the feature [volitional].

8.22 The syntactic feature [volitional] is relevant only to one category of verbs in Sinhalese. Those verbs which are specified for the feature [+ activity] have [+ volitional] and [- volitional] counterparts. Adjectives and the verbs denoting processes such as <u>die</u> do not have volitional-non-volitional distinction.

The verbs in the (a) sentences of (8.1) through (8.5) are verbs of action. Therefore, necessarily they should have a corresponding non-volitional form as illustrated in (b) sentences.

8.23 The verbs which have the feature [- activity] might have forms that are similar to [- volitional] verbs in

their phonological shape.[1] Such phonological differences are not considered important in the present grammatical description because they are not repurcussions of underlying grammatical relations.

For instance consider the following examples:

(8.6) (a) haňdə babələnəva

Nn V

'The moǫn shines.'

(b) haňdə bæbələnəva

Nn V

'The moon shines.'

(8.7) (a) redi poňgənəva

Nn V

'The clothes soak.'

(b) redi peňgenəva

Nn V

'The clothes soak.'

There is an apparent phonological distinction between the verb forms in the (a) sentence and the (b) sentence in each of the above pairs. From the semantic

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1. The most striking phonological feature of [- volitional] verbs is that their stem forms contain front vowels as opposed to back vowels in stem forms of [+ volitional] verbs.

point of view, both verb forms convey an identical meaning. That is to say that native speakers do not recognize a semantic distinction between sentences (a) and (b) in (8.6) - (8.7). The nominal elements that occurs in the (a) sentences in (8.6) - (8.7) does not contain the feature [+ animate] and it holds the Objective relation to the verb. Therefore, the feature [volitional] is inappropriate in connection with the verbs containing the feature [- activity].

8.24 There is another class of verbs which is irrelevant to the feature [volitional]. They denote feelings, emotions and perception. In fact, the verbs which denote such psychological states are not subjected to a person's will. The verb dannəva 'know' is such a verb. It is accepted into the case-frame [D + O ——]. This case-frame shows (by the absence of an Agentive element) that the verb dannəva 'know' does not have a corresponding [- volitional] form.

Consider the following sentence:

(8.8) pereera hoňdəTə vaDuvæ Də dannəva

Nn modifier Na V

'Pereɾa' 'well' 'carpentry' 'know'

'Pereɾa knows carpentry well.'

The D element pereera 'Perera' appears as the surface subject, while the O element vaDuvæ Də 'carpentry' has been selected

as the surface object. Sentence (8.9) can be compared with Sentence (8.8).

(8.9) pereeraTə hoňdəTə vaDuvæ Də dæ nenəva

Nd modifier Nn V

'Perera-to' 'well' 'carpentry' 'know'

'Perera knows carpentry well.'

The superficial differences between Sentences (8.8) - (8.9) are parallel to that of between Sentences (a) and (b) of (8.4) - (8.5) above.

It seems that the meaning of Sentences (8.8) - (8.9) are not different from each other. I make such an assertion depending upon the linguistic intuition of native Sinhalese speakers.[1] Many Sinhalese speaker-hearers do not distinguish between the meanings of Sentences (8.8) - (8.9). As a matter of fact, the basic reason for this is the nature of the underlying case relations of Sentences (8.8) - (8.9). It seems, that the speakers do not recognize the nominal element pereera 'Perera' in Sentence (8.8) as an Agentive element.

8.3 Grammatical Constraints on [- volitional] verbs

In certain grammatical contexts the [- volitional] form of verbs does not occur. Such contexts are discussed

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1. I have checked this with many Sinhalese speakers.

below.

(i) The [- volitional] form of a verb does not occur in the progressive aspect

(a) daruva anDəmin innəva

'The child is crying' is [+ volitional]. A sentence such as -

(b) * daruvaTə æ ň̆Demin innəva which can be marked as [- volitional] does not exist.

(ii) The [- volitional] form of a verb does not occur iteratively.[1]

(a) daruva aň̆Də aň̆Də innəva

'The child is crying'

This sentence has a [+ volitional] verb. A sentence such as

(b) * daruvaTə æ ň̆Di æ ň̆Di innəva which can be marked as [- volitional] does not exist in Sinhalese.

(iii) The [- volitional] form of a verb cannot be used as an imperative.

(a) aň̆Dəpan

'(you) cry' is [+ volitional]. It does not have a [- volitional] form.

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1. Verbs of action are used iteratively in Sinhalese as exemplified in Sentence (ii)(a) to denote the continuous action.

(iv) The [- volitional] form of a verb does not accept adverbials such as kæ mæ tten 'willingly' oonæ kəmin 'attentively, deliberately' prəveesəmen 'carefully' etc.

(a) laməya pintuurə oonæ kəmin balənəva

'The child looks at the pictures attentively' is [+ volitional]. But

(b) * laməyaJə pintuurə oonæ kəmin penenəva which is [- volitional] is unacceptable.

It follows from these considerations that the sentences which contain [+ volitional] and [- volitional] verbs must be treated as sentences having two different deep structures.[1]

The verbs with the feature [- volitional], denote processes.

8.4 Lexical Entry for [+ volitional] and [- volitional] verbs

The verbs with the feature [+ volitional] and the verbs with the feature [- volitional] should be treated as

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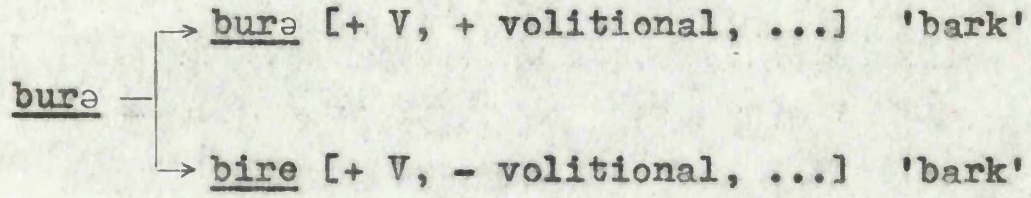
1. George Lakoff strongly and convincingly argued for assigning two different deep structures to sentences which have purposive sense and accidental sense in English. See Lakoff, George - 'Instrumental Adverbs and the Concept of Deep Structure' in Foundations of Language 4 (1968) pp. 4-29.

separate lexical items. They constitute a pair. They can be entered in the lexicon as two sub-entries covered by an abstract root. The type of entry that I think of is illustrated by the following representative lexical entry.



8.5 The Grammar of [- volitional] verbs

8.51 The case-frames for [+ volitional] and [- volitional] verbs must be specified individually because they enter into two different deep structures. The case-frames which were specified for the verbs of action in Chapters 4, 5 and 6 are instances of the case-frames for [+ volitional] verbs. Therefore, the specification of case-frames for [- volitional] verbs is undertaken here.

The [- volitional] verbs can be classified according to the number of arguments with which they occur, and at least one of their arguments must be an animate noun.

The verbs birenəva 'bark' (accidental sense)
æ ň Denəva 'cry' " "
nində yanəva 'sleep' " "

are one-place verbs. They are accepted into the case-frame [D ——]. The sentences containing [- volitional] verbs are

considered as subjectless sentences. The Dative element is realized in the dative case-form. On the whole, these sentences can be described as process oriented, which is opposed to agent oriented.

The underlying structure of Sentence (8.1)(b) ballaTə birenəva 'The dog let out a bark'. is diagrammed in Figure 8.1.

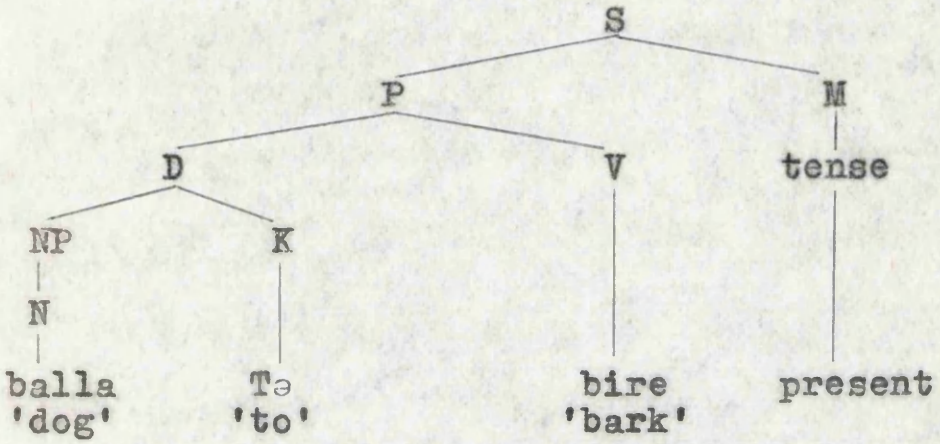


Fig. 8.1. Deep Structure of Sentence (8.1)(b)

The subjectivalization rule is not applied to the configuration in Figure 8.1. The incorporation of the tense marker into the main verb converts the deep structure of Sentence (8.1)(b) into its superficial structure which is shown in Figure 8.2.

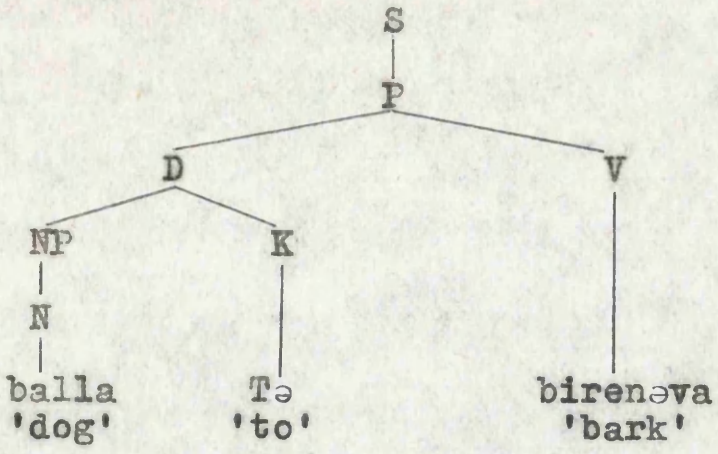


Fig. 8.2. Surface structure of Sentence (8.1)(b)

The surface structure of Sentence (8.1)(b) is not very remote from its deep structure.

8.52

8.521 The verbs <u>æ henəva</u> 'hear'
<u>pæ æ genəva</u> 'trample'
<u>peenəva</u> 'catch sight of'
are two-place [- volitional] verbs. They are accepted into the case-frame [O + D ——].

The underlying structure of Sentence (8.4)(b) <u>laməya</u>Tə <u>pintuurə</u> <u>peenəva</u> 'The child catches the sight of pictures'. is as depicted in Figure 8.3.

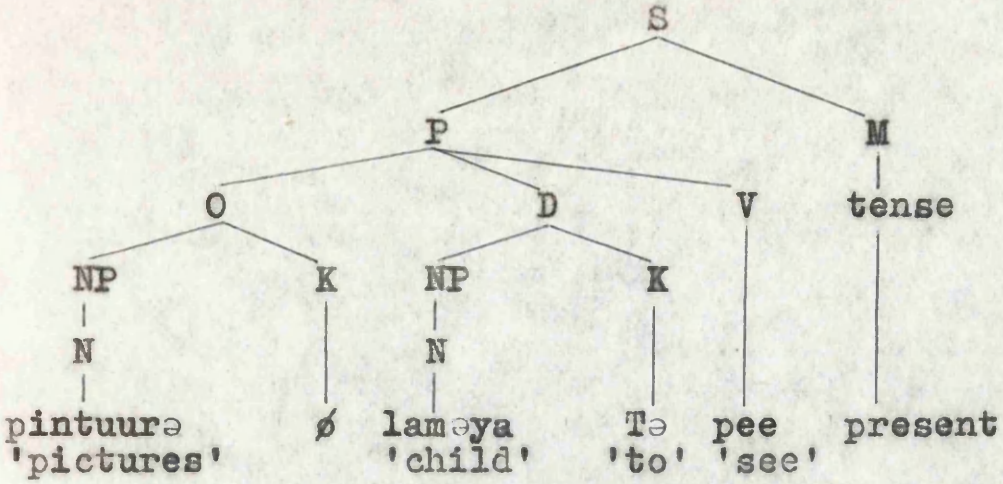


Fig. 8.3. Deep Structure of Sentence (8.4)(b)

I have previously stated that the sentences containing one-place [- volitional] verbs lack surface subjects. But in the environment of two-place [- volitional] verbs, the Objective element is selected as the surface subject. The application of the subjectivalization rule to the Objective element and the incorporation of the tense marker into the main verb transforms the configuration in Figure 8.3 into the structure in Figure 8.4.

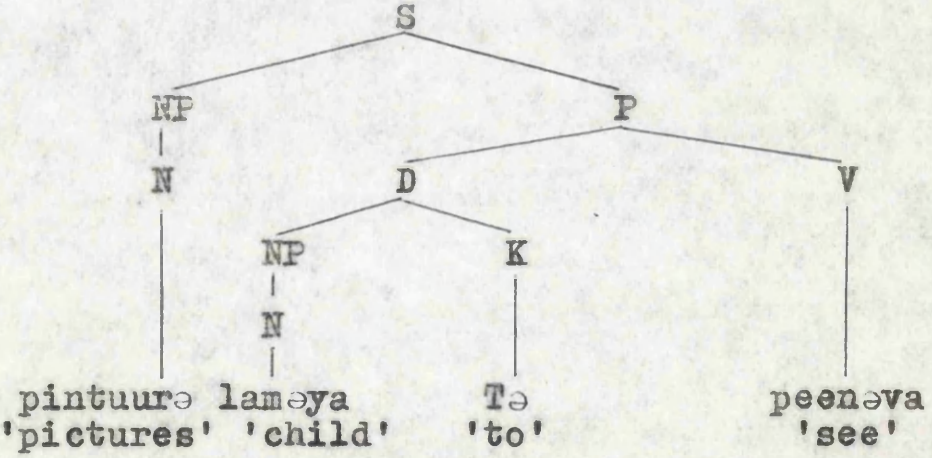


Figure 8.4. Surface Structure of Sentence (8.4)(b)

8.522 The verb dakinəva 'see' has some interesting syntactic features. This is a non-volitional verb and its case-frame is [D + O ——]. Consider the following examples:

(8.10) mamə assəyan dæ kka

Nn Na V

'I' 'horses' 'saw'

'I saw horses'

(8.11) gunəpaalə pintuurə dæ kka

Nn Na saw

'Gunapala' 'pictures' 'saw'

'Gunapala saw pictures'

The nominal elements mamə 'I' and gunəpaalə 'Gunapala' can be recognized as Dative elements at the underlying level. The verb dakinəva 'see' does not occur either in the progressive aspect[1] or in the imperative mood. Consider the following constructions:

(8.12) * gunəpaalə pintuurə dæ kə dæ kə innəva (iterative use of dakinəva 'see')

(8.13) * pintuurə dæ kəpan (imperative)

These constructions are unacceptable. So, it is reasonable to recognize mamə 'I' and gunəpaalə 'Gunapala' in

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1. It seems that the verb dakinəva 'see' occurs in the progressive aspect in very special cases such as: eya hiinə dæ kə dæ kə hiTiya 'He was dreaming'.

Sentences (8.10) - (8.11) as Dative elements and dakinəva 'see' as a [- volitional] verb.

The only [- volitional] verb that accepts a surface subject and a surface object in dakinəva 'see'. The surface structure of Sentence (8.11) can be represented thus:

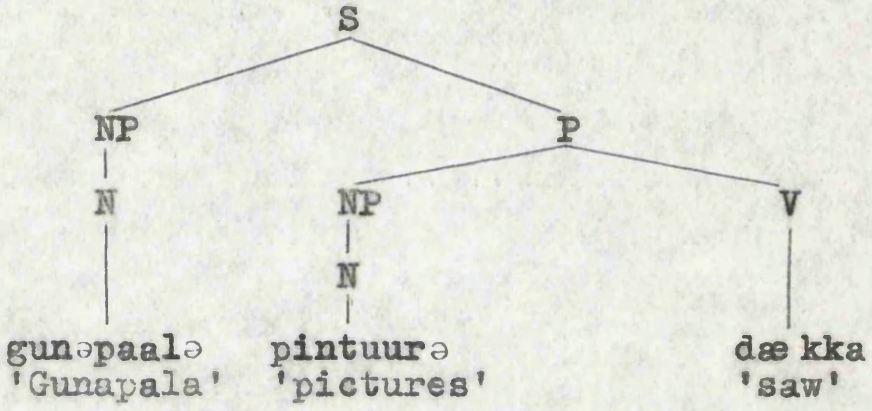

Fig. 8.5. Surface Structure of Sentence (8.11)

This observation shows that the verb dakinəva 'see' is somewhat different from other [- volitional] verbs.

8.523 I have mentioned in this discussion that the non-volitional verbs must take a Dative element. At the first glance, the following examples counter it.

(8.14) mage kanəTə eekə æ huna

Nd Nn V

'my' 'ear-to' 'it' 'heard'

'I heard it'.

(8.15) mage æhæTə eekə penuna

Nd Nn V

'my' 'eye-to' 'it' 'appeared'

'It appeared to me!

How do the speakers understand the nominal elements mage kanəTə 'my ear-to' and mage æhæTə 'my eye-to' in Sentences (8.14) - (8.15)? Are they considered as [- animate] nouns? The noun-phrases mage kanə 'my ear' and mage æhæ 'my eye' are inalienable possessive constructions. They contain an animate noun as the 'possessor'.

The semantic description of Sentences (8.14) - (8.15) is not very different from 'I heard it' and 'I saw it'. The emphasis has been laid upon 'I' in Sentences (8.14) - (8.15) by expanding it as mage kanəTə 'my ear-to' and mage æhæTə 'my eye-to'. Therefore, there is a case to treat the elements mage kanəTə 'my ear-to' and mage æhæTə 'my eye-to' as Dative elements.

8.53 Three-place [- volitional] verbs

All three-place verbs have corresponding [- volitional] forms. The verb devenəva 'give' (accidental sense) is the [- volitional] counterpart of denəva 'give' (purposive sense) which is [+ volitional].

8.6 [- volitional] verbs and the Instrumental case.

Two-place non-volitional verbs accept Instrumental elements very rarely.[1] Consider the following example:

(8.16) mamə durədaknen kuDaataarəkaa dækka

Nn Ni Na V

I 'binoculars-with' 'small' 'stars' 'saw'

'I saw small stars with binoculars.'

The nominal element durədaknen 'binoculars-with' holds the Instrumental relation to the verb dakinəva 'see'. So, the case-frame of the verb dakinəva 'see' in Sentence (8.16) is [D + O + (I) ——].

The verb peenəva 'catch sight of' also accepts an Instrumental element. Consider the following sentence.

(8.17) maTə kannaaDiyen hoňdəTə akuru

Nd Ni adv. Nn

'me-to' 'pair of spectacles-with' 'well' 'letters'

peenəva

V

'see'

'I see letters well with the pair of spectacles'.

The nominal element kannaaDiyen 'pair of spectacles-with'

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1. This investigation is due to Dougherty, Ray C. 'Review article', Foundations of Language 6 (1970).

holds the instrumental relation to the verb in Sentence (8.17).

8.7 Summary

Now, I return to a theoretical problem. One of the general principles of case grammar is that 'each case relationship occurs only once in a simple sentence'. I attempted to maintain this principle throughout the present grammatical description. However, there are some sentences counter to this principle. Consider the following case-frames:

(8.18) (a) denəva 'give' (purposive) +[A + O + D ——]

(b) devenəva 'give' (accidental) +[D + O + D ——][1]

(8.19) (a) kiyənəva 'tell' (purposive) +[A + O + D ——]

(b) kiyæ venəva 'tell' (accidental) +[D + O + D ——]

(8.20) (a) baninəva 'tell off' (purposive) +[A + O + D ——]

(b) bæ nenəva 'tell off' (accidental) +[D + O + D ——]

Each (b) case-frame contains two identical case categories. The sentences which are generated by inserting verbs into these case-frames cannot be dealt with as complex entences.

There are two ways to overcome this difficulty. One of them is to relax the principle which runs: 'each case relationship occurs only once in a simple sentence'. The

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1. The case categories in the (b) case-frames are not ordered.

other is to recognize a different case category to represent the non-volitional agent. However, it should be borne in mind that some sort of agency is involved in the non-volitional actions. Therefore, the invention of a different case category to identify the first argument in the (b)-case frames above is tenable to a certain extent.

If this proposal is acceptable all case-frames that I have specified for non-volitional verbs must be revised.

On the whole, the frequency of the occurrence of the sentences containing [- volitional] verbs is low.

CHAPTER 9

EXISTENTIAL SENTENCES, POSSESSIVE MODIFIERS, CO-ORDINATE CONJUNCTION AND PREDICATE NOMINALS

9.0 Introduction

This Chapter contains discussions of a number of different topics; namely, Existential, Locative and Possessive sentences, the co-ordinat conjunction and predicate nominals.

I recognize Existential, Locative and Possessive sentences as belonging to a single sentence type which I name '*Existential sentences*'. Fillmore's treatment of 'inalienable' possessive construction is adequate.

The discussion of the co-ordinate conjunction advances reasons for treating the co-ordinate conjunction as a deep structural element. Consequently, the notion of the *Comitative Case* is relegated to the surface structure of sentences.

The grammar of attributive sentences (Predicate Nominals) involves a number of unresolved problems. Finding solutions for them may end up in a highly abstract grammatical theory.

9.1 Existential Sentences

9.11 Consider the following sentence:

(9.1) sattu vanantəre innəva

Nn Nl V

'animals' 'forest-in' 'be'

'Animals live in the forest' (= There are animals in the forest).

Many linguists use the term 'existential' to name the sentence type illustrated by Sentence (9.1) which denotes the existence of animate beings. It contains a verb innəva which is somewhat similar to 'be(in English and a noun phrase sattu 'animals' which holds the Objective relation to the verb. (The nominal sattu 'animals' is recognized as an Objective element in Sentence (9.1) because it does not fulfil the conditions of the definitions set up for Agentive or Dative). The nominal vanantəre 'forest-in' is recognized as a Locative element.

Now, it is possible to compare Sentence (9.1) with the following sentence.

(9.2) pot peTTiye tiyənəva

Nn Nl V

'books' 'box-in' 'be'

'Books are in the box' (= There are books in the box)

Sentence (9.2) is usually called a 'Locative sentence'

It contains two nominal elements one of which - pot 'books' - holds the Objective relation to the verb while the other - peTTiye 'box-in' - functions as a Locative element.

These observations suggest that Sentences (9.1) - (9.2) contain identical grammatical relations. In other words they have a common deep structure until they reach their lexical items. Because of these affinities between Sentences (9.1) and (9.2), I propose not to maintain a distinction between 'existential' and 'locative' sentences. So that, I call this sentence type (illustrated by Sentences (9.1) and (9.2)) the 'existential sentence'.

There is a superficial difference between the verb-forms in Sentences (9.1) and (9.2). It depends upon the presence or the absence of the feature [animate] in the nominal element which is selected as the surface subject. If the surface subject nominal contains the feature [+ animate], it selects the form innəva 'be'. The verb tiyənəva 'be' is selected by the 'surface subject' which contains the feature [- animate]. Therefore, innəva and tiyənəva are treated as a single unit which has two realizations in two different environments.

The verb innəva/tiyənəva 'be' occurs primarily in

'existential' sentences.[1] The meaning of these sentences can be extracted by studying the semantic content and the syntactic relations between the two nominal elements involved, without referring to the verb innəva/tiyənəva 'be'. This shows that the semantic contribution of the verb innəva/tiyənəva 'be' to the meaning of sentences in which it occurs in zero. It has only a functional value. In the present linguistic description, I call this verb the 'existential' verb.[2]

According to the principles of case grammar, a case-frame can be specified for the 'existential' verb. It is represented as:

'Existential verb + [O + L ——]

The subjectivalization rule is applied to the O element. The L element is realized in the locative case-form.

The underlying structure of Sentence (9.1) can be represented as shown in Figure 9.1.

---

1. This verb occurs in so-called 'possessive' sentences too. I am going to point out below (Section 9.12) that the distinction between 'existential' and 'possessive' sentences is minimal. They can be treated as a single sentence type.

2. Fillmore has used the terms 'blank' verb and 'empty' verb to denote semantically empty verbs. See 'The Case for Case', p. 44ff.

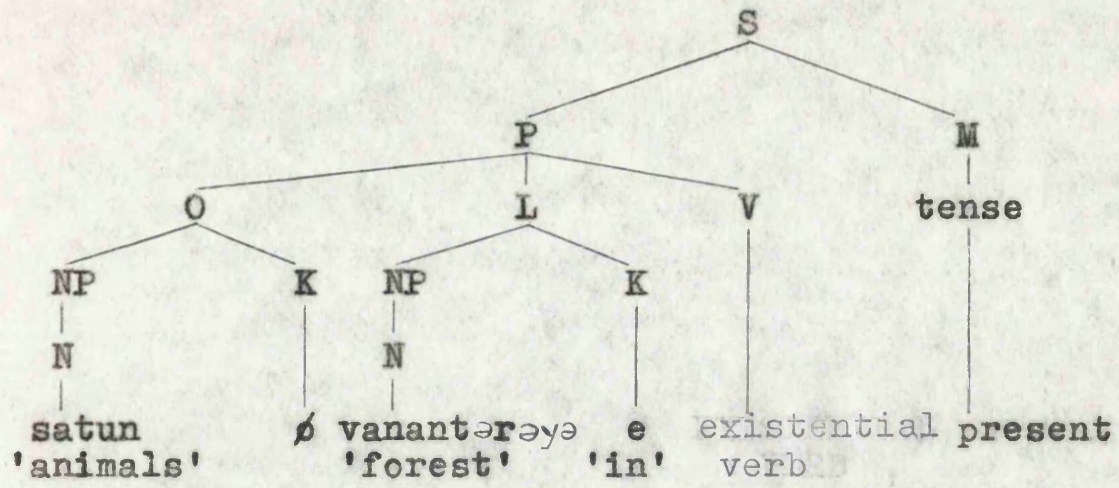

Fig. 9.1. Deep Structure of Sentence (9.1).

The application of the Subjectivalization rule to the O element and the incorporation of the tense marker into the verb yield the superficial structure of Sentence (9.1) which is depicted in the following tree diagram.

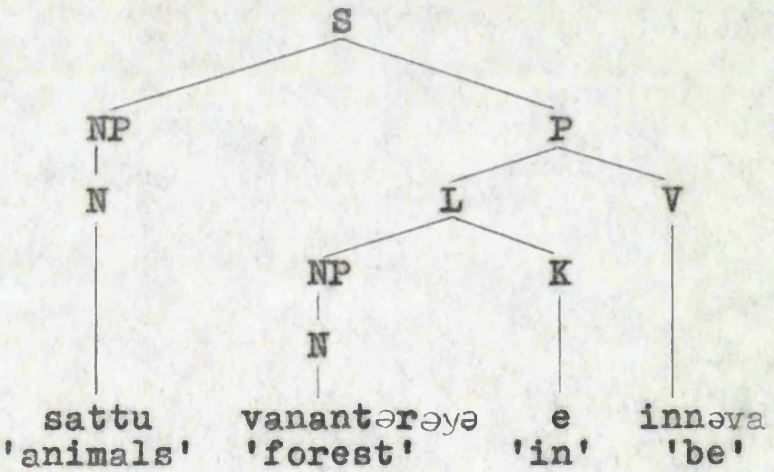

Fig. 9.2. Surface Structure of Sentence (9.1)

In the process of mapping the deep structure of Sentence (9.2) into its surface structure, the same set of

rules which was applied to the deep structure of Sentence (9.1) is utilized. The 'existential verb' is replaced by tiyənəva 'be' because the sentence contains a surface subject with the feature [- animate].

9.12 Possessive Sentences

Those sentences which contain a 'possessor' and a 'possessed' are usually called 'possessive' sentences. Consider the following sentences.

(9.3) dennu apəTə innəva
Nn Nd V
'Cows' 'useto' 'be'
'We have cows.'

(9.4) pot ratnəTə tiyənəva
Nn Nd V
'books' 'Ratna-to' 'be'
'Ratna has books.'

The only difference between Sentences (9.3) and (9.4) is that the 'surface subject' of Sentence (9.3) contains the feature [+ animate] while the surface subject of Sentence (9.4) contains the feature [- animate]. I described the nature of the verb forms innəva 'be' and tiyənəva 'be' in the discussion of existential sentences.

The case-frame which occurs in Sentences (9.3) -

(9.4) is [O + D ——]. The subjectivalization rule applies to the O element. The D element is realized in the dative case-form.

I recognize that the verb in Sentences (9.3) - (9.4) is identical with that of Sentences (9.1) - (9.2).

The underlying structure of Sentence (9.3) can be represented as in Figure 9.3.

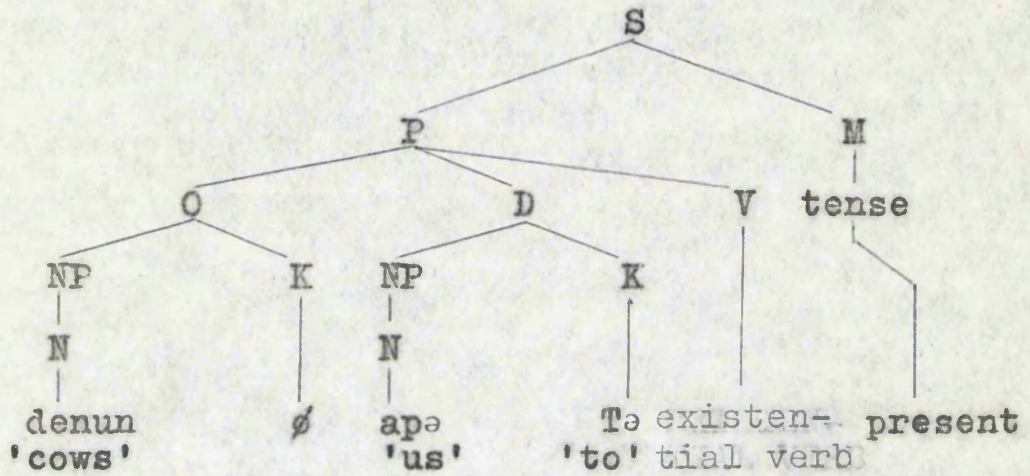

Fig. 9.3. Deep Structure of Sentence (9.3)

The application of the subjectivalization rule to the O element and the incorporation of the tense marker into the verb convert the configuration in Figure 9.3 into its surface structure which is represented in Figure 9.4.

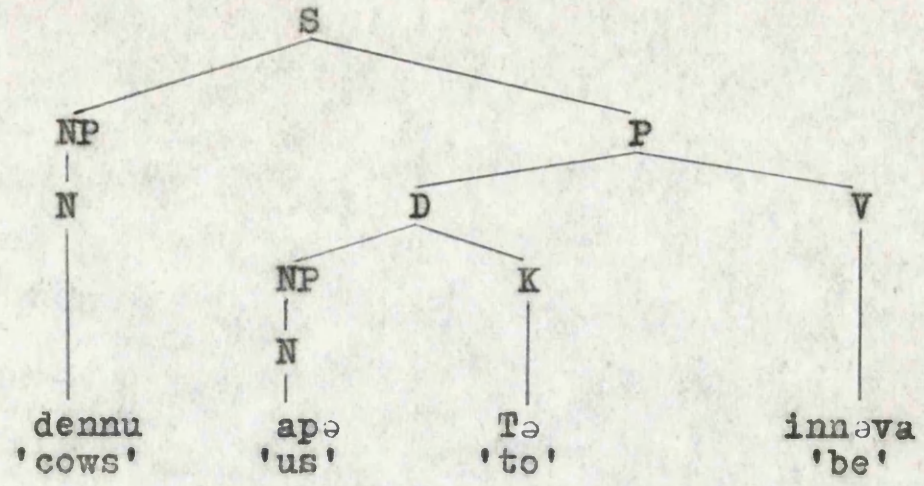

Fig. 9.4. Surface Structure of Sentence (9.3).

This investigation shows that there is a very significant relationship between Sentences (9.1) - (9.2) and (9.3) - (9.4). All these sentences contain the same verb, which is the existential verb. Their difference is limited to the occurrence of a Locative element in Sentences (9.1) - (9.2) (in addition to the Objective element) in place of a Dative element in Sentences 3 -4. It is now possible to compare their case-frames:

(9.5) [O + L ——] in Sentences (9.1) - (9.2)

(9.6) [O + D ——] in Sentences (9.3) - (9.4)

These two case-frames can be conflated as $[O + \left\{\begin{matrix} L \\ D \end{matrix}\right\} ——]$, which clearly shows both the relation and the distinction between existential and possessive sentences.

Since the distinction between existential and possessive sentences is minimal and systematic, I consider

that those sentence types are associated with the grammar of the 'existential verb'.

9.13 Dative and Genitive

The relationship between the Dative and the Genitive cases has already been noted.[1] Consider the following sentences:

(9.7) dennu ape
Nn Ng
'Cows' 'ours'
'The cows are ours'.

(9.8) pot ratnəge
Nn Ng
'books' 'Ratna's'
'The books are Ratna's'.

Constructions (9.7) - (9.8) are related to Sentences (9.3) - (9.4) above. Sentences (9.3) - (9.4) have surface verbs, but constructions (9.7) - (9.8) do not. On the other hand, the Dative elements in (9.7) - (9.8) appear in the genitive case-form.

Constructions (9.7) - (9.8) are answers to the questions.

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1. 'The Case for Case', p. 61.

(9.9) dennu kaage də

Nn Ng particle

'Whose cows are these'?

(9.10) pot kaage də

Nn Ng particle

'Whose books are these'?

Constructions (9.9) - (9.10) show that the pronoun kaa 'who' appears in the genitive case-form. Then, it should be asked what are the reasons for the genitive realization of Dative elements in constructions (9.7) - (9.8)? The answer is; in the absence of the surface realization of the existential verb, the Dative element is obligatorily realized in the gentive case-form. Consider the following constructions:

(9.11) dennu apəTə

Nn Nd

'Cows' 'us-to'

(9.12) pot ratnəTə

Nn Nd

'books' 'Ratna-to'

Constructions (9.11) - (9.12) are abnormal if their underlying structure contains the elements [O + D + Existential verb]. Their normalization is carried out by converting the dative case-forms into genitive case-forms. Consider the pronoun kaa 'who' in (9.9) - (9.10). It appears in the

genitive case-form because these constructions (9.9) - (.10) do not contain surface existential verbs.

9.2 Possessive Modifiers

9.21 The theory of grammar distinguishes between alienable possession and inalienable possession. The following constructions show the occurrence of the Dative element as a noun modifier. They denote alienable possession.

(9.13) ape dennu
Ng Nn
'Our cows'

(9.14) ratnage pot
Ng Nn
'Ratna's books'

Constructions (9.13) - (9.14) should be taken as noun-phrases. The possessive modifier of each noun-phrase is introduced from an embedded sentence. Therefore, the 'modifier-modified' relationship in (9.13) - (9.14) is a sentential relationship. Fillmore has postulated a sentence embedding rule as NP → N + S.[1] This rule is adequate to deal with the grammar of

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1. 'The Case for Case', p. 49.
The actual shape of the rule postulated by Fillmore is NP → N(S). It looks like the conflation of rules:
(i) NP → N
(ii) NP → N + S
The rule required in dealing with constructions (9.13) - (9.14) is (ii).

constructions (9.13) - (9.14).

The underlying structure of construction (9.14) can be represented as in Figure 9.5. I use a question mark for the tense marker of the embedded sentence to indicate my uncertainty as to the tense.

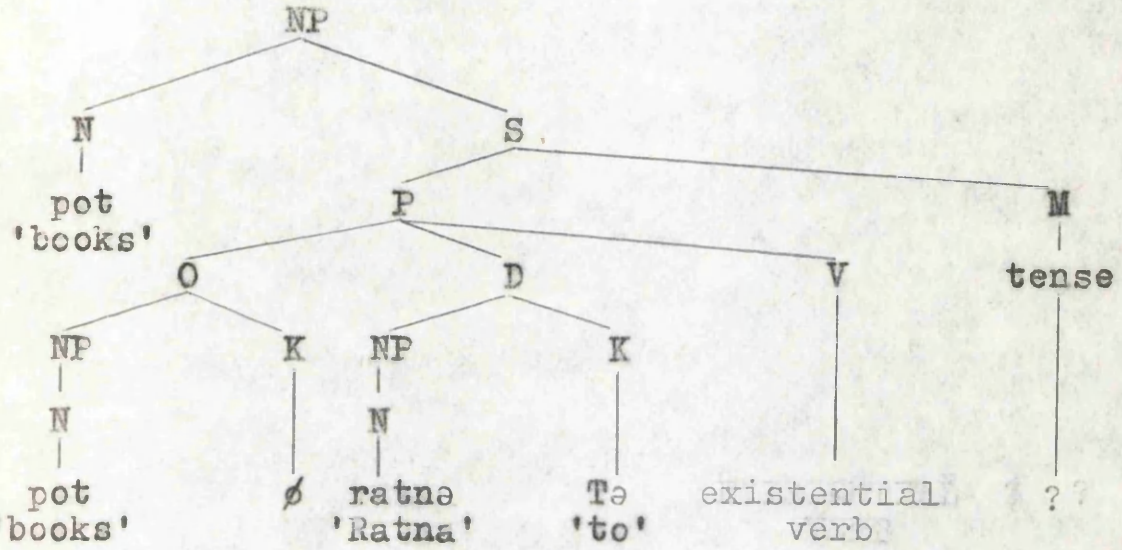

Fig. 9.5. Underlying Structure of Construction (9.14)

What we need here, is a set of transformational rules which has the effect of 'raising' the D element of the embedded sentence and reattaching it to the containing NP. Then the N and D elements are permuted. The Dative element which functions as a noun modifier is obligatorily realized in the genitive case-form.

9.22 Now, I return to the description of inalienable possessive constructions. Consider the following examples.

(9.15) mage atə

Ng Nn

'My hand'

(9.16) gunəpaaləge piya

Ng Nn

'Gunapala's father'

Again, constructions (9.15) - (9.16) are taken as noun-phrases, and the modifier-modified relationship of two noun-phrases in each construction is not understood as a sentential relationship. Fillmore asserts:

> "A distinct method is required for introducing the possessive element in the case of inalienable possession, a method which reflects the fact that the relationship between the two nouns in alienable possession is not a sentential relationship".[1]

One can argue that constructions 9.15 - 9.16 have been derived from

(9.17) maTə atak tiyənəva

'me-to' 'hand' 'be'

'I have a hand'.

(9.18) gunəpaaləTə piyek innəva

'Gunapala-to 'father-to' 'be'

has

'Gunapala' a father'.

These constructions are rather awkward. Therefore,

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1. 'The Case for Case', p. 66.

the idea of deriving constructions (9.15) - (9.16) from (9.17) - (9.18) is rejected. Still one may point out that the realization of sentences like (9.17) - (9.18) must be blocked. They must be converted by an obligatory transformation into 'modifier-modified' constructions.

The nominals atə 'hand' and piya 'father' are inherently relational. Usually, they do not occur without an element denoting a possessor. This is a deep structural fact. If we are going to generate constructions (9.15) - (9.16) from (9.17) - (9.18), these deep structural facts have to be stated in terms of transformations. Such a device is certainly a bone of contention because it is assumed that grammatical relations are fixed in the base and cannot depend on transformations.

Fillmore proposed a distinct phrase structure rule to deal with the structure of inherently relational noun-phrases.[1]

(9.19) NP → N + D

---

1. Fillmore's rule is NP → N(D). 'The Case for Case', p. 66. This rule looks like the conflation of rules
   (i) NP → N
   (ii) NP → N + D
   Rule (ii) contains a D complement which is obligatory. I utilize this rule in this grammatical description.

This rule shows that some nouns take Dative complements. Therefore nouns in language must be divided into two classes; inherently relational nouns and others. The nouns which denote parts of the body and some kinship terms are inherently relational. They accept Dative elements directly as shown in Rule (9.19). The other nouns accept possessive modifiers introduced from embedded 'possessive' sentences.

These two sources of possessive modifiers introduced by Fillmore are adequate in accounting for the distinction between alienable possession and inalienable possession.

The underlying structure of construction (9.16) is represented in Figure 9.6.

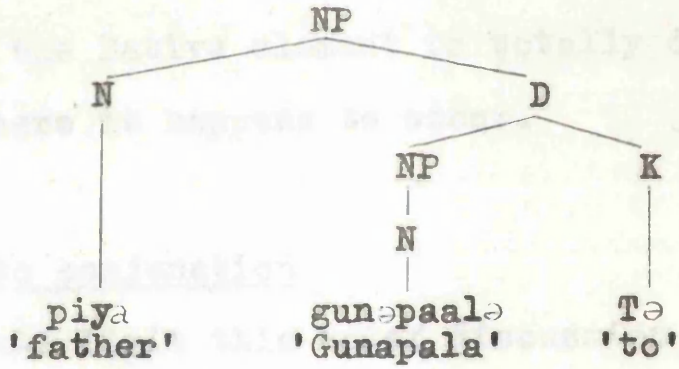

Fig. 9.6. Underlying Structure of Construction (9.16)

The mapping of the structure shown in Figure 9.6 into its surface structure involves two transformational rules; namely,

(a) The N-D permutation transformation

(b) The Genitive suffix introduction transformation.

The operation of these rules upon the configuration depicted in Figure 9.6 yields the surface structure of construction (9.16). It is shown in the following tree diagram.

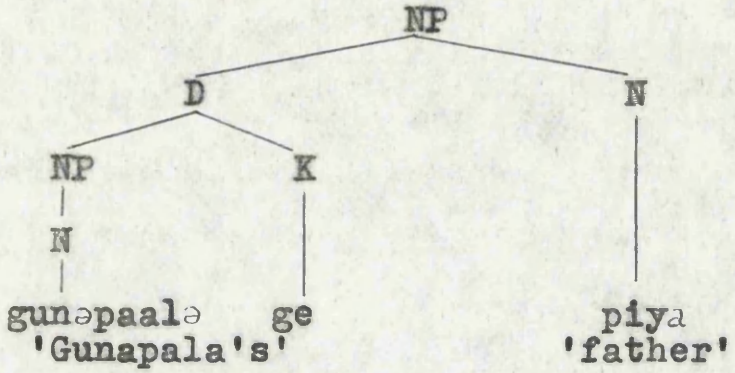

Fig. 9.7. Surface Structure of Construction (9.16).

The present discussion shows that the genitive realization of the Dative element is totally determined by the position where it happens to occur.

9.3 Co-ordinate conjunction

I shall limit this brief discussion to the investigation of some facts associated with the co-ordinate conjunction which is introduced into the grammar by means of a phrase

structure rule.[1]

Fillmore notes the fact that-

"only noun-phrases representing the same case may be conjoined".[2]

This statement is a result of the investigation of conjoined noun-phrases in simplex sentences. Therefore, it should be revised as 'only noun-phrases representing the same case may be conjoined in a simplex sentence'.[3]

There is an obvious relationship between the co-

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1. At the inception of transformational grammar Noam Chomsky held the view that co-ordinate conjunction cannot be expressed in terms of a phrase structure rule; it should be derived transformationally by conjoining sentences. See Syntactic Structures (The Hague, 1957), pp. 35-36. As the discussion of the theory of transformational grammar became widespread George Lakoff and Stanley Peters pointed out that there are two kinds of conjunctions; namely - phrasal conjunction and sentential conjunction. The Phrasal conjunction must be specified in terms of a phrase structure rule. See, George Lakoff and Stanley Peters 'Phrasal Conjunction and Symmetric Predicates' in Mathematical Linguistics and Automatic Translation, Harvard Computation Laboratory, Report No. NSF-17, pp. VI-1 to VI-49. Reprinted in David A. Reibel and Sanford A. Schane Modern Studies in English: Readings in Transformational Grammar. Prentice-Hall (1969) pp. 113-142.

2. 'The Case for Case, p. 22.

3. This revision is required because of the possibility of conjoining nominal elements belonging to different cases in the conjunction of sentences. See Ray C. Dougherty 'Review Article' in Foundations of Language 6 (1970) p. 510.

ordinate conjunction and the particle ekkə 'together/with'. In order to account for this relationship Fillmore postulated a case category under the designation 'Comitative' and formalized the following rule.[1]

(9.20) NP → N + C

(C = Comitative case)

It gives the configuration:

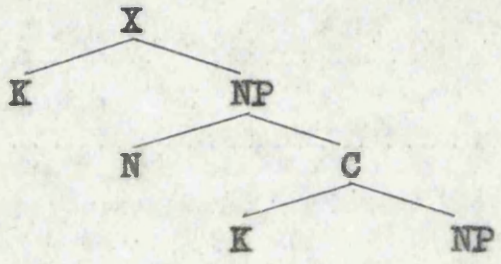

Fig. 9.8.

The symbol X has been used as a cover term for various case categories. The process of adjoining noun-phrases is indefinite. It is not clear how Fillmore is going to account for this property. I conjecture that he might indicate the possibility of adjoining an indefinite number of noun-phrases by amending the configuration in Figure 9.8 as:

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1. 'The Case for Case', pp. 81-83.

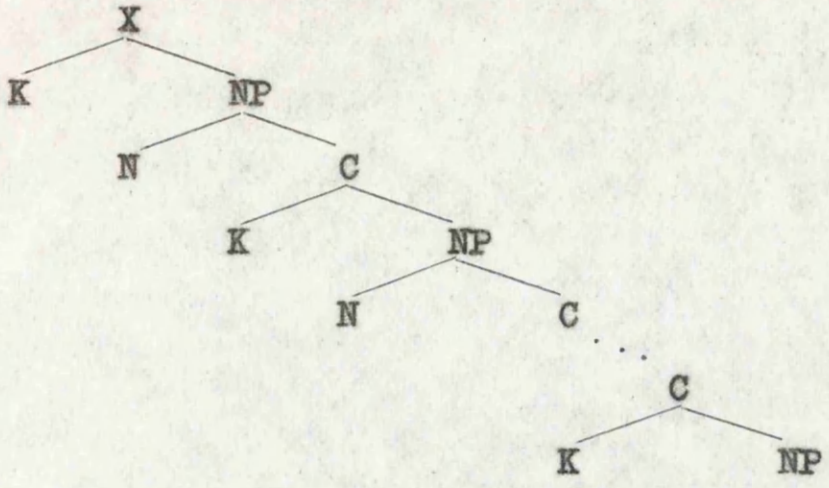


Fig. 9.9.

This grammatical rule generates an indefinite number of noun-phrases with the Comitative case marker ekkə 'together/with'.

According to Fillmore's explanation the Comitative element is a deep case category of a different nature. He asserts:

> "The case category C has a very special status, since the selectional constraints on nouns under C are those of the super-ordinate NP".[1]

However, the concept of the Comitative case and the derivational process associated with it are debatable points. Consider the following examples:

(9.21)	amma	yi	malli	yi	akka	yi	gedərə(Tə)
	Nn	p	Nn	p	Nn	p	N(d)
	'mother'	'and'	'brother'	'and'	'sister'	'and'	'home-to'

---

1. 'The Case for Case', p. 82.

aava

V

'came'

'(My) mother, brother and sister came home'.

(9.22) amma malli yi akka yi ekkə

Nn Nn p Na p p

'mother' 'brother' 'and' 'sister' 'and' 'with'

gedərə(Tə) aava

N(d) V

'home-to' 'came'

'(My) mother came home with (my) brother and sister'.

Sentence (9.21) is ambiguous and it can be derived from two sources. One of them is by conjoining sentences. The other is by considering the noun-phrase amma yi malli yi akka yi 'mother, brother and sister' as resulting from the conjunction of noun-phrases. I am not concerned here with the first source. Therefore, I shall discuss only the derivation of Sentence (9.21) from an underlying structure containing a conjoined noun-phrase. The meaning of Sentence (9.21) should be understood in what follows as 'my mother, brother and sister came home together'.

Now, the relation between Sentences (9.21) and (9.22) should be noted. They both are derived from the same source. The noun-phrases amma 'mother', malli 'brother' and akka

'sister' in Sentences (9.21) - (9.22) are interchangeable to give the constructions:

(9.23) malli yi akka yi amma yi gedərə aava

'(My) brother, sister and mother came home'.

(9.24) malli yi akka yi amma ekkə gedərə aava

'(My) brother and sister came home with my mother'.

In addition to constructions (9.23)-(9.24) a number of other constructions are also available. All these noun-phrases hold the Agentive relation to the verb aava 'came'. Therefore, the differences between examples (9.21) - (9.24) belong to their surface structure. They have a common underlying structure.

Now, I take up the problem of introducing the co-ordinate particle yi 'and'. According to Dillmore's explanation, the co-ordinate conjunction in 'He and his wife came' is introduced transformationally. Again such a view begs a number of questions. Consider the following sentence:

'He came with his wife and his aunt'. How can we account for the conjunction and in the 'predicate phrase' of this sentence? Is it an element introduced transformationally?

Every noun-phrase in the Agentive element in Sentence (9.21) occurs with the co-ordinate particle yi 'and'. Sentence (9.22) contains the particle ekkə 'with' along with yi 'and'. According to these data, the most economical

treatment must be the recognition of yi 'and' as a deep element. The particle ekkə 'together/with' is introduced transformationally.

The following rules are required to specify co-ordinate conjunction at the underlying level.[1]

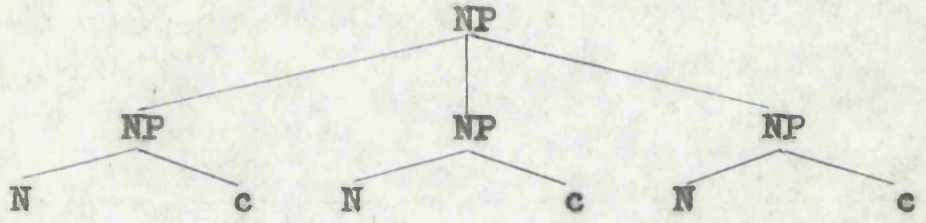
(9.25) (i) NP → NP+ ... +NP

This rule is abbreviated to

(i) $NP \rightarrow NP^{n}$

(ii) NP → N + c

These rules generate structures such as:



By adopting Rule (9.25), it is possible to relegate the Comitative case of Fillmore to the surface structure of sentences.

On the basis of these assumptions the underlying structure of Sentences (9.21 - (9.22) can be specified as in Figure 9.10.

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1. It should be mentioned that the rules which I am going to specify here are similar to those in George Lakoff and Stanley Peters, op. cit.

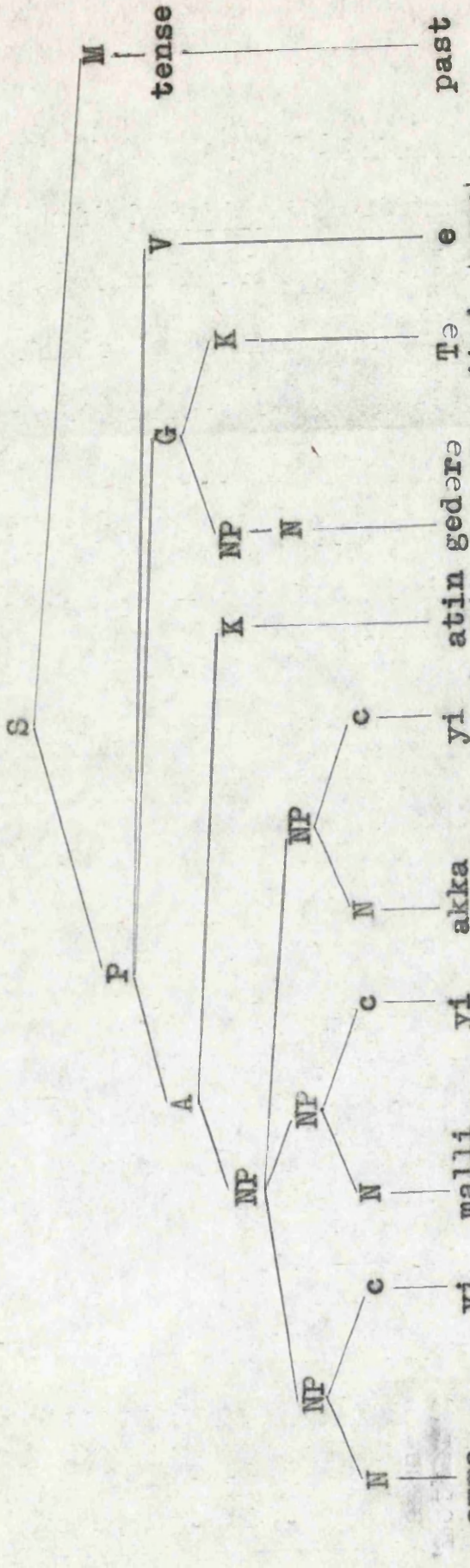


Fig. 9.10. Deep Structure of Sentences (9.21) - (9.22)

In the process of the 'normal' subject choice, the A element of the deep structure configuration in Figure 9.10 is selected as the surface subject. The A element in Figure 9.10 contains a conjoined noun-phrase and it offers a choice; that is either the entire noun-phrase or one or more out of the conjoined noun-phrases may appear in the surface subject position. When one noun-phrase from the conjoined structure is chosen as the surface subject, the remainder appears in the propositional constituent with the particle ekkə 'with/ together'. Sentence (9.21) results when the whole range of noun-phrases dominated by the Agentive element appears as the surface subject. The surface structure of Sentence (9.21) is depicted in Figure 9.11.

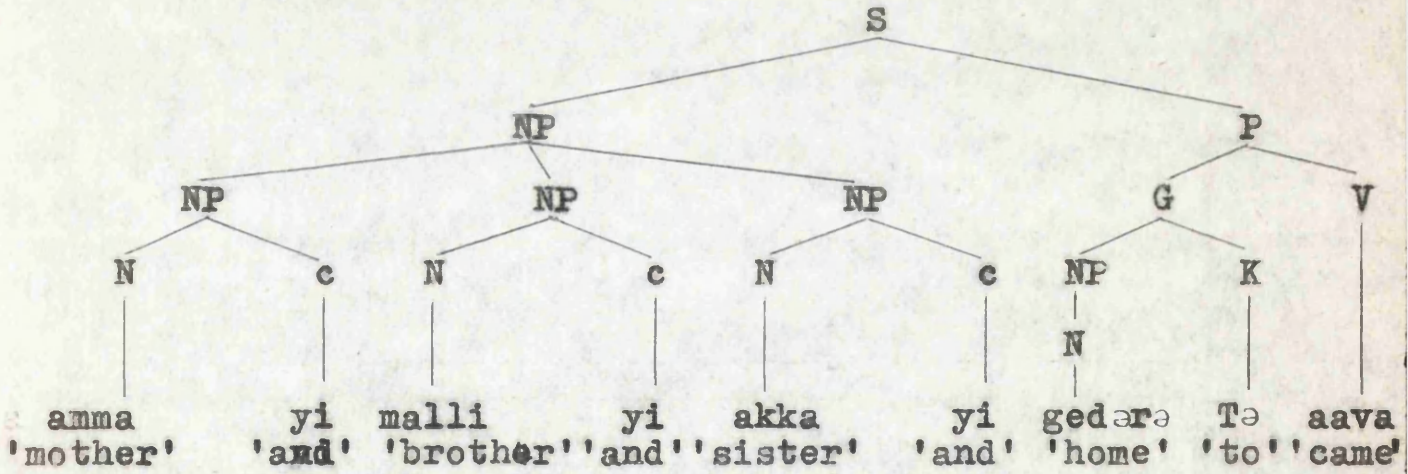


Fig. 9.11. Surface Structure of Sentence (9.21)

I mentioned above the possibility of selecting one or more of the nominal elements in a conjoined structure as

the surface subject. This should be treated as a movement of some of the noun-phrases of the conjoined noun-phrase to the propositional constituent. This should be carried out after the application of the 'subject movement rule' in order to block the generation of unacceptable constructions of the following kind.

(9.26)* mee potə siriseenə atin gunəpaalat ekkə liyæ vuna

* 'This book was written by Sirisena with Gunapala'.

If the 'conjoined noun-phrase movement rule' is applied before the surface subject movement rule, the non-normal subject selection rule can be applied. Construction (9.26) is the result of the application of the non-normal subject choice rule to the string containing the meaning of 'Sirisena wrote the book with Gunapala'. Therefore, the conjoined noun-phrase movement rule must follow the surface subject choice rule in order to block the generation of Construction (9.26).

Example (9.22) above is the result of moving noun-phrases malli yi akka yi 'brother and sister' from the conjoined noun-phrase which was selected as the surface subject to the propositional constituent. The intermediate stage of the derivational process of Sentence (9.22) is depicted in Figure 9.12.

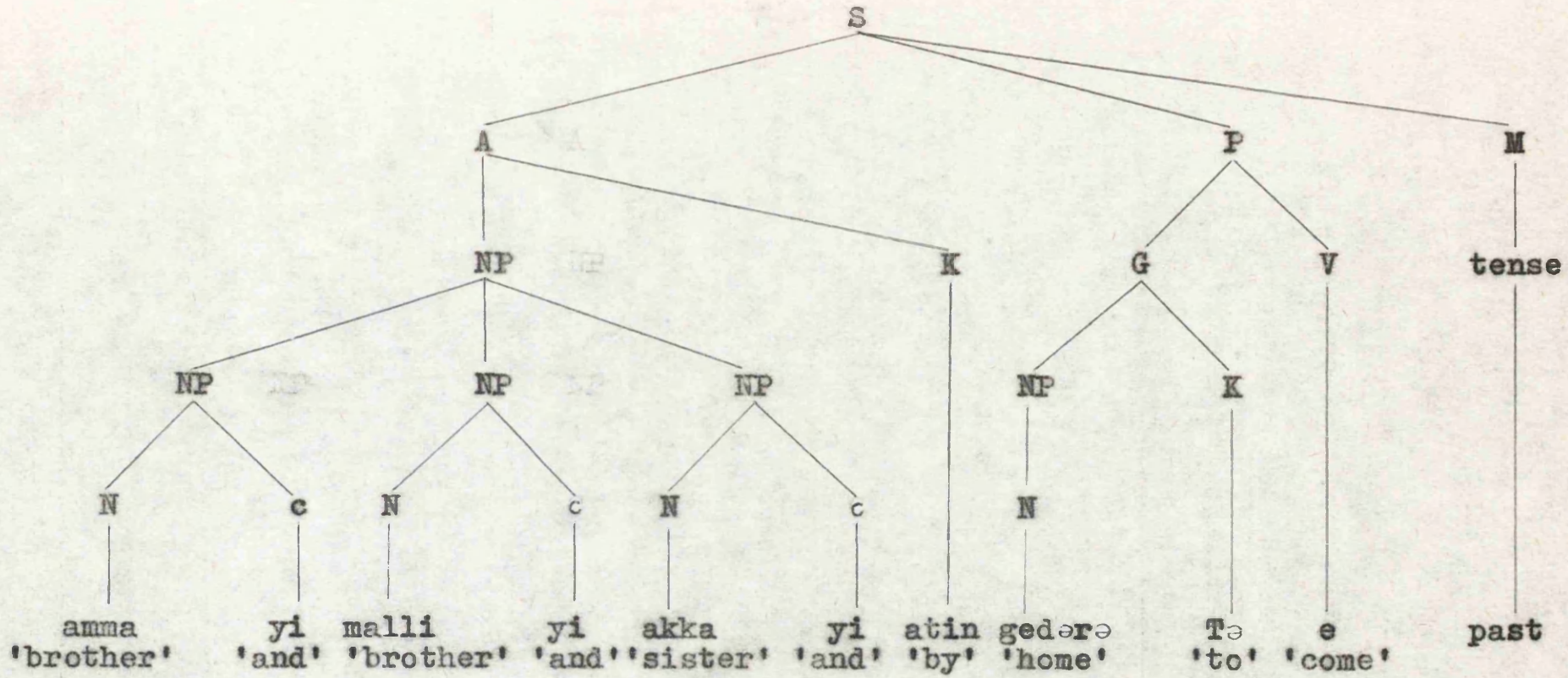
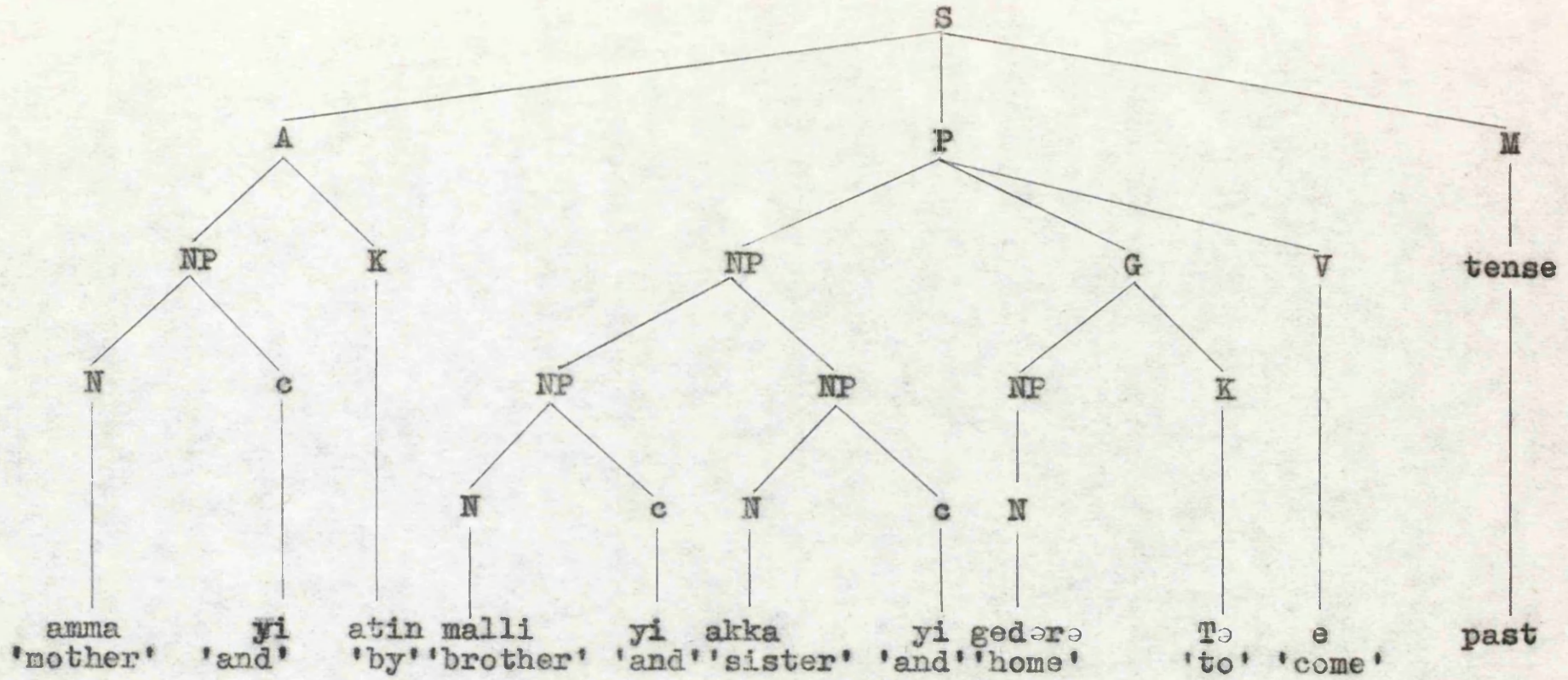


Fig. 9.12. Subjectivalization

Then the noun-phrases malli yi akkayi 'brother and sister' are moved so that they are dominated by the propositional constituent to give the result shown in the following configuration.


S
A
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NP
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NP
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NP
NP
K
N
c
N
c
N
amma
'mother'
yi
'and'
atin
'by'
malli
'brother'
yi
'and'
akka
'sister'
yi
'and'
gedərə
'home'
Tə
'to'
e
'come'
past

Fig. 9.13.

If the element selected as the surface subject contains a single nominal element, the co-ordinating particle yi 'and' is obligatorily deleted.

The configuration in Figure 9.13 shows that some of the noun-phrases which occurred under the case category A (in Figure 9.10) have been moved into the proposition after the application of the subjectivalization rule. They function as a unit (and they are dominated by an NP). In order to get the surface structure of Sentence (9.22) the particle ekkə 'together/with' must be spelled; and it should be directly adjoined to the NP which dominates the conjoined nominal elements. Eventually the tense element is incorporated into the main verb. The surface structure of Sentence (9.22) is represented in Figure 9.14.

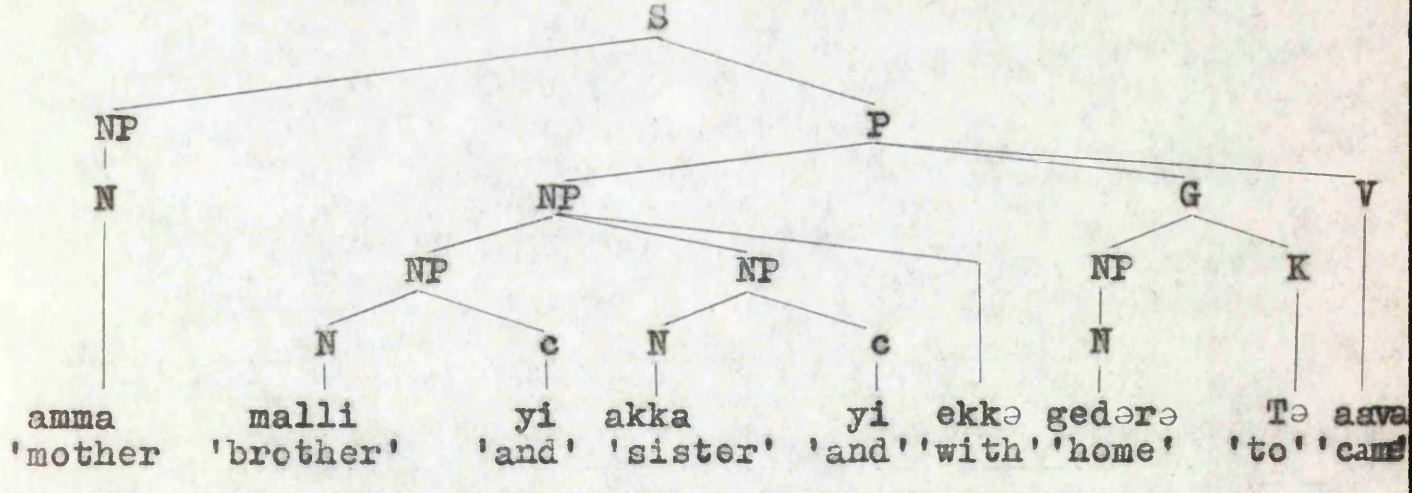

Fig. 9.14. Surface Structure of Sentence (9.22)

If my line of reasoning is correct, the elements which were recognized as the Comitative Case by Fillmore belong to the surface structure of sentences. Therefore, I conclude that it is not necessary to postulate a deep case category under the designation Comitative. The particle ekkə 'together/with' is introduced by a spelling rule. The co-ordinate particle yi 'and' does exist in the deep structure.

9.4 Nominal Predicates

Sentences with nominal predicates constitute a distinct sentence pattern whose grammar involves a number of unresolved problems. Case grammar does not contain a satisfactory device for dealing with these problems. The purpose of this brief discussion is not to suggest a solution, but to point out the complicated nature of the problems involved. Consider the following examples:

(9.27) piyəseenə guruvərəyek
Nn Nn
'Piyasena' 'teacher-ā'
'Piyasena is a teacher'.

(9.28) meekə navəkataavak
Nn Nn
'this-one' 'novel-a'
'This is a novel'.

Examples (9.27) - (9.28) are usually called attributive sentences. Each sentence contains two nominal elements. One of them functions as the surface subject. The other denotes a characteristic of the person or the thing denoted by the 'surface subject' nominal. It is recognized as the 'predicate'. The predicate nominal, too, in examples (9.27) - (9.28) is inflected to the nominative case-form as is the surface subject.

The other relevant property of Sentences (9.27) - (9.28) is that their nominal elements are not easily reversible.

Fillmore has made two suggestions for formulating a descriptive apparatus to deal with these sentences.

His opinion (at the time of writing 'The Case for Case') was that attributive sentences, such as (9.27) - (9.28) contain more than one case category. Therefore, he proposed to invent one or more new case categories to label them.

If I understand the case grammar proposed in the main thesis of 'The Case for Case' correctly, each case category refers to a participant. It is obvious that the sentence type illustrated by Examples (9.27) - (9.28) and sentences like 'John is an idiot' (given by Fillmore) contain only one participant. The nominal elements of these sentences are co-referential (sentences containing reflexive pronouns should be treated as a different case). That is to say, that

these examples are a result of inserting lexical items into a case-frame such as [C —]. (C is a cover symbol for any case category).

Let us imagine for a moment that there are two case categories, namely Objective and Essive[1] in Examples (9.27) - (9.28). Then, the case category Essive is going to be an element with different properties from those of Agentive, Dative etc. It does not refer to a participant, and it agrees in number, gender and surface case-form with the nominal element which appears as the 'surface subject'.

These facts show that the Essive element has rather peculiar properties, and it should be considered as belonging to a different level from that of Agentive, Dative etc. Is there any room in case grammer to recognize case categories at different levels? What can a grammarian achieve by postulating case categories belonging to different levels?

Furthermore, finding solutions to the technical problems involved in the derivational process of constructions containing Essive elements is immensely difficult. Therefore, I do not support the idea of a new case category under the

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1. Fillmore has mentioned the term Essive in 'The Case for Case', p. 84. Ilse Lehiste has made an attempt to utilize it as a case category in the paper titled ''Being' and 'Having' in Estonian' published in Foundations of Language 5 (1969), see specially, pp. 332-334.

designation Essive.

The alternative suggestion of Fillmore is to develop a descriptive apparatus which treats nominal elements as predicates. In this context, the term, 'predicate' is used in the sense in which it is used in symbolic logic. It denotes "the grammatical category consisting of verbs, adjectives and nouns".[1]

It is very obvious that Fillmore uses the term 'predicate' exactly in the same sense in one of his publications.[2] He defines the predicate as:

> "A predicate is a term which identifies some property of an object, or some relation between two or more objects".[3]

The paper titled 'Lexical Entries for Verbs' by Fillmore, clearly shows that the category symbol verb has been replaced by the symbol 'predicate'. Furthermore, Fillmore specified case categories that occur with some predicates. At the end of the discussion, he put forward the idea of specifying arguments for nominal elements which

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1. Langendoen, D. Terence - The Study of Syntax - The Generative Transformational Approach to the Structure of American English, (1969), p. 96.

2. Fillmore, Charles J., 'Lexical Entries for Verbs' in Foundations of Language 4 (1968), pp. 373-393.

3. Ibid., p. 373.

function as predicates. This is exactly parallel to the specification of case-frames in 'The Case forCase'.

Fillmore asserts:

> 'My discussion has been limited to verbs, but the ideas are relevant to the description of adjectives and nouns as well".[1]

He attempts to point out the possibility of using the word BACHELOR as a predicate.

In fact, this is an innovation in the case grammar proposed in 'The Case for Case'. If we adopt this idea, the theory of grammar must be developed along new dimensions. As Emmon Bach[2] pointed out a distinction between verbs, adjectives and nouns should not be maintained at the deepest level of the language.

On the basis of these assumptions, nouns can be treated as one-place predicates. Their case-frame might look like [O ——]. If this suggestion is plausible, the grammatical description of sentences containing nominal predicates becomes somewhat easier. However, such a linguistic description is highly abstract.

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1. op. cit., p. 392.

2. Bach, Emmon, 'Nouns and Noun Phrases' in Bach and Harms (eds.) Universals in Linguistic Theory (1968) Holt, Rinehart and Winston, Inc., pp. 90-122.

CHAPTER 10

CONCLUSION

I have been attempting in this grammatical description to account for the structure of Sinhalese sentences according to the rules of case grammar proposed by Charles J. Fillmore. I do not claim that I have dealt with the structure of all possible simplex sentence types in this language. The case categories which have been utilized in this grammatical description are recapitulated below with their definitions.

(i) Agentive (A) 'the case of the typically animate perceived instigator of the action identified by the verb'.

(ii) Instrumental (I) 'the case of the inanimate force or object causally involved in the action or state identified by the verb'.

(iii) Dative (D) 'the case of the animate being affected by the state or action identified by the verb'.

(iv) Factitive (F) 'the case of the object or being resulting from the action or state identified by the verb, or under-

stood as a part of the meaning of the verb'.

(v) Locative (L) 'the case which identifies the location or spatial orientation of the state or action identified by the verb'.

(vi) Objective (O) 'the semantically most neutral case, the case of anything representable by a noun whose role in the action or state identified by the semantic interpretation of the verb itself; conceivably the concept must be limited to things which are affected by the action or state identified by the verb'.

(vii) Time (T) 'the case which identifies the location in time of action or state denoted by the verb.

(viii) Source (So) the case which identifies the starting point of a movement.

(ix) Goal (G) the case which identifies the place where the movement of a being or an object comes to an end.

? (x) Agentive (non-volitional) the case which identifies the actor of the action denoted by the non-volitional verb.

In this work I attempted to use a minimum number of case categories. It is assumed that they form a specific finite set, but the inventory of case categories which constitutes this finite set is still to be completed. I am sure that some new case categories must be invented to deal with the grammar of sentences of the following kind.

(10.1) mee potə japaanəyə gæ na yi
'This book is about Japan'.

(10.2) mee balla vrukəyek vage yi
'This dog is like a wolf'.

(10.3) pilip kataakəranne agamæ ti vage yi
'Philip speaks as if he is the prime-minster'.

(10.4) mee potə raattal tunak bara yi
'This book weighs three pounds'.

(10.5) mee potə rupiyal tunak vaTinəva
'This book costs three rupees!

(10.6) mee riTə aDi hayak diga yi
'This pole is six feet long'.

Therefore, I am not going to state that this inventory of case categories is adequate in dealing with all sentence types in a language. However, the multiplication of their number is an empirical question still to be resolved.

I shall now come to the vexed question of the relevance of the notions of subject and object in grammar.

Is it necessary to recognize 'deep subject' and 'deep object' as opposed to surface subject and surface object? Do the notions of the subject and object contribute to the semantic description of sentences? Consider the following examples:

(10.7) janeeləyə kæ Duna

'The window broke'.

(10.8) gunəpaalə janeeləyə kæ Duva

'Gunapala broke the window'.

It is assumed that there is a significant relationship between these sentences. The nominal element janeeləyə 'window' in Sentence (10.7) functions as the subject, while in Sentence (10.8), it functions as the object. This shows that the relations signified by terms such as subject and object are not constant in these sentences. However there is a more elementary relation between the verb kæ Duna 'broke' and the nominal janeeləyə 'window'. The object identified by the nominal janeeləyə 'window' has changed, as the result of the process identified by the verb. This 'semantic' relation is basic and constant in Sentences (10.7) and (10.8). What case grammar does is explaining this type of elementary relations between the nominal elements and the verb. It seems that the speakers, when they use language, do not pay attention to the notions of subject and object, but they consider the nature of the process identified by the verb,

the participants involved in the process and the rôles played by each participant. The concepts who did the action, what got changed, where it happened, etc. belong to these rôle types. These rôle types are elementary in the use of language, and they are treated as unanalysable.

The notion of rôle types is relevant in the semantic interpretation of sentences. The subject and the object do not play such central rôles in understanding sentences and producing sentences. Therefore, presumably they do not contribute directly to the semantic interpretation of sentences. So, the notions of subject and object are relegated to the superficial level of language and they are formed by major transformational rules of case grammar.

At the deep structure, it seems that there is no special status corresponding either to subject or object by which one or another NP can be isolated from the rest associated with a verb. The surface realizations of sentences require surface subjects and surface objects. This can be explained as a requirement of formal grammars, and it can be satisfactorily dealt with in the transformational component of grammar. This has been demonstrated by case grammar. It follows from this that the specification of grammatical relations, subject and object is not necessary in the deep grammar.

The grammatical description presented in this thesis shows that Fillmore's case grammar should undergo some modifications with respect to the formulation of facts. The facultative representation of case categories is based upon the assumption that the verbs see/show, die/kill are synonymous. I pointed out above the weakness of this assumption.[1]

Fillmore has investigated a selected set of sentences in postulating the principles of case grammar. If he had investigated a wider range of data he would have modified either the basic assumption which runs: 'Each case relationship occurs only once in a simple sentence' or the device of representing case categories in case-frames. The examples 'The prisoners marched' and 'He marched the prisoners' run counter to the basic assumption just mentioned. In order to overcome these difficulties, I modified, in this thesis, the device of representing case categories in case-frames. Moreover I introduced the concept of causativization into case grammar.

I propose that the classification of verbs according to the number of arguments with which they occur should be done in a consistent way. Both the conceptually required arguments and syntactically required arguments must be distinguished.[2] The classification of verbs should be based

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1. See above pp. 73-77

2. See above pp. 91-97

upon the number of syntactically required arguments. A n-place verb is always a n-place verb, it becomes a m-place verb as a consequence of a systematic grammatical process (such as Causativization).

However, the grammatical description of the following set of sentences is still an unresolved problem.

(10.9) (a) mee pihiyə hoňdəTə kæ penəva

'This knife cuts well'.

(b) mee pihiyen hoňdəTə paan kæ penəva

'This knife cuts the bread well'.

(c) piyəseenə mee pihiyen hoňdəTə paan kapənəva

'Piyasena cuts the bread well with this knife'.

There is a relationship between the sentences in paradigm (10.9). But, how can one relate them to each other to form a system? The possibility of relating them through causativization does not seem promising. It is very difficult to find a satisfactory solution to this problem.

In the present grammatical description, I did not attempt to describe the explanatory power of case grammar in comparison with the standard theory or the theory of generative semantics. However, case grammar does not contribute to the theory of generative semantics because it utilizes a 'semantically justified syntactic deep structure'. Case grammar explicitly indicates that 'all semantically relevant syntactic

relations between the noun-phrases and the deep structures containing them must be of the labelled type' and they must be handled by special category symbols such as Agentive, Dative etc. Case grammar utilizes these category symbols (which are semantically valid) in the formulation of the base component. Fillmore himself calls this grammatical model 're-statement linguistics' and this is a particular modification of the generative transformational grammar.

The universal base hypothesis (which is still in the realm of speculation) that arises from case grammar is like this: a deep structure which is specified by this grammatical model contains a proposition of which there is a predicate and one or more number of arguments. These arguments are related to the proposition by case category symbols. For instance: the action denoted by the verb eat must accept at least two arguments, one of them denotes an actor and it holds the Agentive relation to the proposition; the other denotes an edible thing and it holds the Objective relation to the proposition. This type of deep structure is not language specific; and in the formulation of it the semantic facts are thoroughly taken into account. In this sense case grammar is a contribution towards the universal-base hypothesis.

APPENDIX

This appendix consists of three parts.

Part I contains the grammatical rules that played a prominant rôle in this grammar. All these rules are ordered. The complex symbols (= CS) of lexical items are not developed.

In transformational rules, SD: stands for structural description, and SC: for structural change.

X and Y are cover symbols. They stand for all possible elements including zero.

[ ] symbols indicate labelled bracketing. The subscripts stand for grammatical categories. Their values are as specified in the main body of the thesis.

Part II shows how the grammatical rules in Part I generate sentences. The notation X $\overset{(99)}{\Longrightarrow}$ Y indicates that the phrase-marker, X is transformed into the phrase-marker, Y, by Rule 99.

Part III contains the rules required for the derivation of possessive modifiers.

PART I

Phrase Structure Rules

Given: # S #

1. $S \rightarrow P + (M)$

2. $P \rightarrow C_1 + \ldots + C_n + V$

$C = A, O, D, F, L, I, T, So, G, \ldots$

3. $C \rightarrow \left\{\begin{matrix} NP + K \\ S \end{matrix}\right\}$

4. $NP \rightarrow \left\{\begin{matrix} NP^n \\ N \left(\left\{\begin{matrix} S \\ D \end{matrix}\right\}\right) \end{matrix}\right\}$

5. $NP \rightarrow N + c$

6. $N \rightarrow CS$

7. $K \rightarrow \left\{\begin{matrix} atin & /[NP \text{ ——}]_A \\ en & /\left\{\begin{matrix} [NP \text{ ——}]_I \\ [NP \text{ ——}]_{So} \end{matrix}\right\} \\ T\text{ə} & /\left\{\begin{matrix} [NP \text{ ——}]_D \\ [NP \text{ ——}]_G \end{matrix}\right\} \\ e & /[NP \text{ ——}]_L \\ \phi & /\left\{\begin{matrix} [NP \text{ ——}]_O \\ [NP \text{ ——}]_F \end{matrix}\right\} \end{matrix}\right\}$

8. $V \rightarrow CS$

9. $M \rightarrow tense$

10. $tense \rightarrow \left\{\begin{matrix} past \\ present \end{matrix}\right\}$

TRANSFORMATION RULES

Causativization - Primary

11. Tense Erasure

SD: NP - K - $_{O}[_{S}$[NP - K - V- tense]$_{S}]_{O}$ - V - tense

SC: 1 2 3 4 5 6 7 8

OBL

1 2 3 4 5 ø 7 8

Condition 8 = 6

12. Verb Raising

SD: NP - K - $_{O}[_{S}$[NP - K - V]$_{S}]_{O}$ - causative - tense

SC: 1 2 3 4 5 causative 6

OBL

1 2 3 4 5 6

causative

13. Causative Feature Introduction

SD: NP - K - $_{O}[_{S}$[NP - K]$_{S}]_{O}$ - $\begin{matrix} V \\ \text{causative} \end{matrix}$ - tense

SC: 1 2 3 4 $\begin{matrix} V \\ \text{causative} \end{matrix}$ 5

OBL

1 2 3 4 $\left[\begin{matrix} V \\ + \text{ causative} \end{matrix}\right]$ 5

14. Dative Case Introduction

SD: NP - K - $_{A}$[NP - $\frac{\text{atin}}{\text{'by'}}$]$_{A}$ - NP - K - $\left[\begin{matrix} V \\ + \text{ causative} \end{matrix}\right]$ - tense

SC: 1 2 $_{A}$[NP - $\frac{\text{atin}}{\text{'by'}}$]$_{A}$ 3 4 5 6

OBL

1 2 $_{D}$[NP - $\frac{\text{Tə}}{\text{'to'}}$]$_{D}$ 3 4 5 6

Condition: V is a <u>kanəva</u> 'eat' type verb

15. Permutation

SD: NP - K - NP - K - NP - K - $\left[\begin{smallmatrix} V \\ +\text{ causative} \end{smallmatrix}\right]$ - tense

SC: 1 2 3 4 5 6 7 8

OBL→

1 2 5 6 3 4 7 8

Condition: Rule 14 must have applied.

Causativization - Secondary

Rules 16-19 are similar to 11-13.

20. lavva 'by' Introduction

SD: NP - K - NP - atin 'by' - NP - K - $\left[\begin{smallmatrix} V \\ +\text{ causative} \end{smallmatrix}\right]$ - tense

1 2 3 atin 'by' 4 5 6 7

OBL→

1 2 3 lavva 'by' 4 5 6 7

21. Subjectivalization non-normal - Secondary Causative

SD: $_S[_P[$NP - K - NP - K - NP - K - $\left[\begin{smallmatrix} V \\ +\text{ causative} \end{smallmatrix}\right]$ $]_P$ tense$]_S$

SC: $_P[$1 2 3 4 5 6 7 $]_P$ 8

OPT→

$_S[$5 6 $_P[$1 2 3 4 7 $]_P$ 8$]_S$

22. Subjectivalization non-normal two-place verb, three-place verb and primary causative

SD: $_S[_P[$NP - K - NP - K - V$]_P$ - tense$]_S$

SC: $_S[_P[$1 2 3 4 5$]_P$ - 6 $]_S$

OPT→

$_S[$3 4 $_P[$1 2 5 $]_P$ 6$]_S$

23. Passive Feature Registering

SD: $_S[$NP - K - $_P[$NP - K - V$]_P$ - tense$]_S$

SC: 1 2 3 4 V 5

OBL→

1 2 3 4 $\left[\begin{smallmatrix} V \\ +\text{ passive} \end{smallmatrix}\right]$ 5

Condition: either 21 or 22 must have applied.

24. Subjectivalization normal

SD: $S[_P[NP - K - X - V]_P - Y]_S$

SC: $S[_P[1 \quad 2 \quad 3 \quad 4]_P \quad 5]_S \Longrightarrow$

$S[\ 1 \quad 2 \quad P[3 \quad 4]_P \quad 5]_S$

Condition: V allows the surface subject

25. Conjoined NP movement

SD: $S[_A[_{NP}[N \underbrace{- c}]_{NP} - {}_{NP}[NP \underbrace{- c}]_{NP} - K]_A - P[\ V\ ]_P\ Y]_S$

SC: $S[_A[\quad 1 \quad\quad\quad 2 \quad\quad 3]_A \ P[\ 4\ ]_P\ 5]_S \overset{OPT}{\Longrightarrow}$

$S[_A[\quad 1 \quad\quad\quad 3\ ]_A \quad P[\ 2 \quad 4\ ]_P\ 5]_S$

26. Case-Marker Deletion

SD: $S[NP - K - P[X]_P - Y]_S$

SC: 1 2 3

$\overset{OBL}{\Longrightarrow}$

1 $\emptyset$ 3

Condition: Either 21, 22 or 24 must have applied.

27. Surface Case Assignment

SD: $S[NP - P[X]_P - Y]_S$

SC: 1 2 $\overset{OBL}{\Longrightarrow}$

$\begin{bmatrix} 1 \\ + \text{nominative} \end{bmatrix}$ 2

Condition: NP contains the features $\begin{bmatrix} + \text{animate} \\ - \text{singular} \end{bmatrix}$

28. Co-ordinate Conjunction Deletion

SD: $_S[N - c - _P[X]_P \quad]_S$

SC: 1 2 3 $\xrightarrow{OBL}$

1 ø 3

Condition: Surface subject is not a conjoined NP

29. Objectivalization - Secondary Causative

SD: $_S[NP - _P[NP - K - NP - K - \begin{bmatrix} V \\ + \text{causative} \end{bmatrix}]_P - \text{tense}]_S$

SC: 1 2 3 4 5 6 7 $\xrightarrow{OBL}$

1 2 3 4 ø 6 7

Condition: Rule 24 must have applied

30. Objectivalization - two-place verb, three-place verb and primary causative

SD: $_S[NP - _P[NP - K - V]_P - \text{tense}]_S$

SC: 1 2 3 4 5 $\xrightarrow{OBL}$

1 2 ø 4 5

Conditions: 1. Rule 24 must have applied.
2. V allows the surface object.

31. <u>Tə</u> Introduction

SD: $_S[NP - _P[_O[NP - _K[ø]_K]_O - V]_P - Y]_S$

SC: 1 2 [ø] 3 $\xrightarrow{OBL}$

1 2 [<u>Tə</u>] 3

Condition: V does not allow the surface object.

32. ekkə 'with/together' Introduction

SD: $_S[NP - _P[N - c - X]_P - Y]_S$

SC: 1 2 3 4

$\xRightarrow{OBL}$

1 2 3 ekkə 4

Condition: 3 is the last c of the proposition

33. t Introduction Rule

$_S[NP - _P[N - _c[yi]_c - W]_P - Y]_S$

1 2 yi 3 4

$\xRightarrow{OBL}$

1 2 t 3 4

Condition: Proposition contains only one c.

34. Co-ordinate Conjunction Deletion

SD: $_S[NP - _P[N - c - X]_P - Y]_S$

SC: 1 2 3 4

$\xRightarrow{OPT}$

1 2 ø 4

Condition: Proposition contains only one c.

35. Tense Incorporation

SD: $_S[Y - _P[X - V]_P - tense]_S$

SC: 1 2 3

$\xRightarrow{OBL}$

1 2 + 3

36. yi Spelling

SD: X - V

SC: 1 2

$\xrightarrow{OBL}$

1 2 yi

Condition: S does not contain a tense marker

37. Word Boundary Transformation

SD: X - Y

SC: 1 2

$\xrightarrow{OBL}$

1 2

Condition: 1 - 2 ≠ N - K
if K = $K^{[atin]}_{'by'}K$ or $K^{[lavva]}_{'by'}K$
this rule must be applied.

PART II

Derivation 1

1. daruva aňDənəva

Nn V

'The child is crying'.

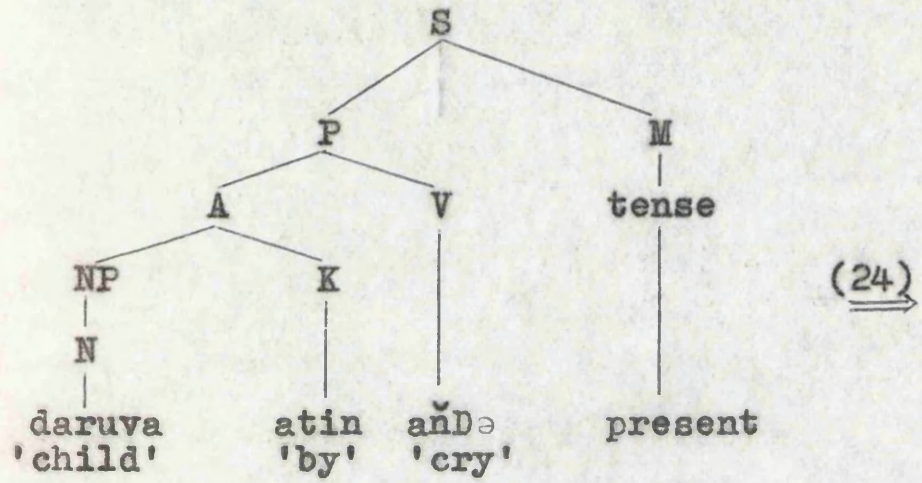


Fig. 1 Deep Structure of Sentence 1. Generated by Rules 1-10 and Lexical Insertion

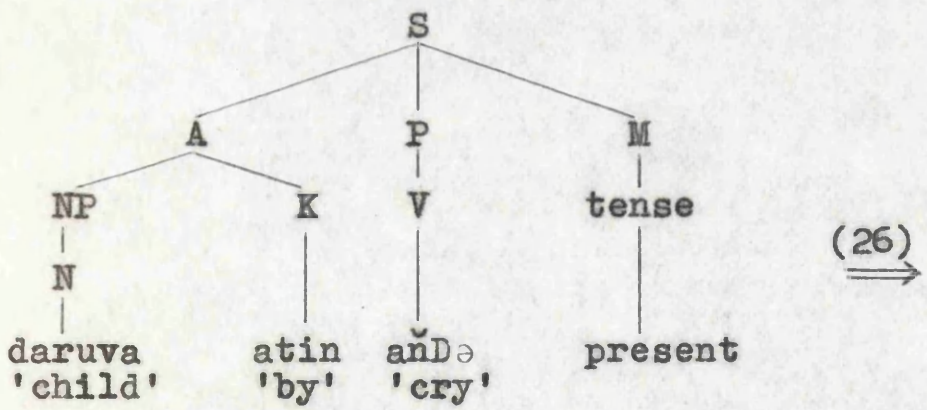


Fig. 2.

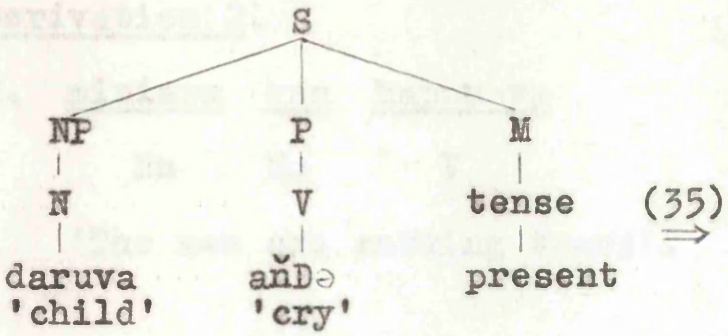


Fig. 3.

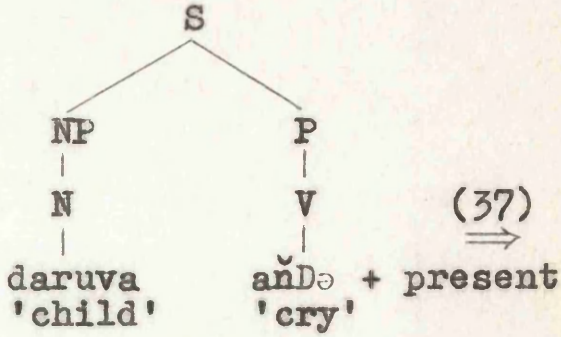


Fig. 4.

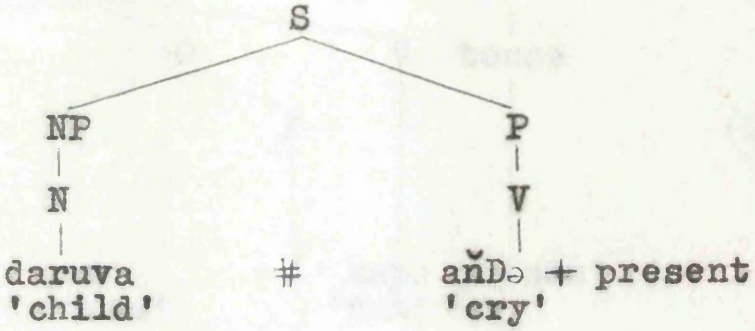


Fig. 5

Derivation 2.

2. minissu gas kapənəva

Nn Na V

'The men are cutting trees'.

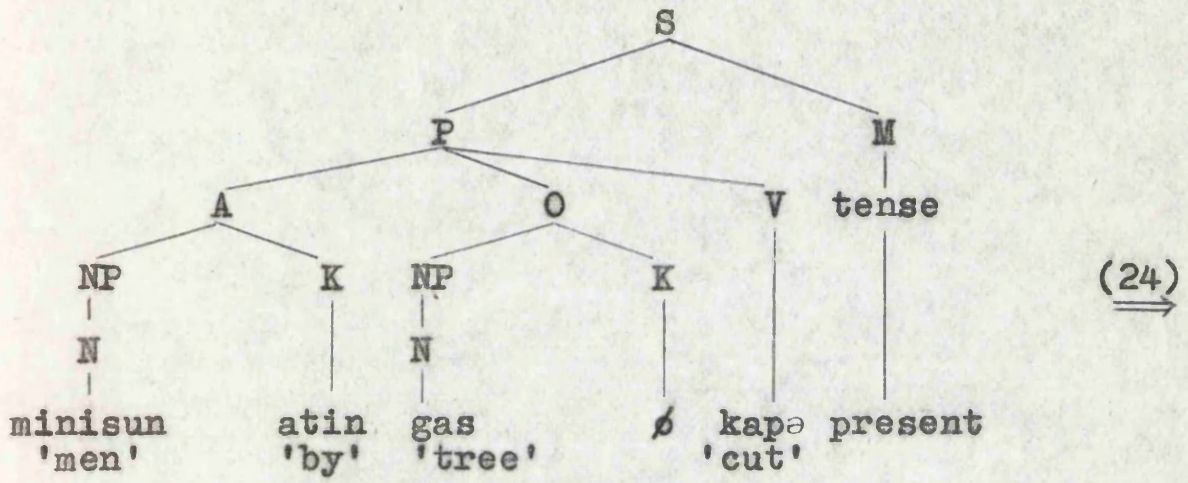


Fig. 6. Deep Structure of Sentence 2 Generated by Rules 1-10 and Lexical Insertion

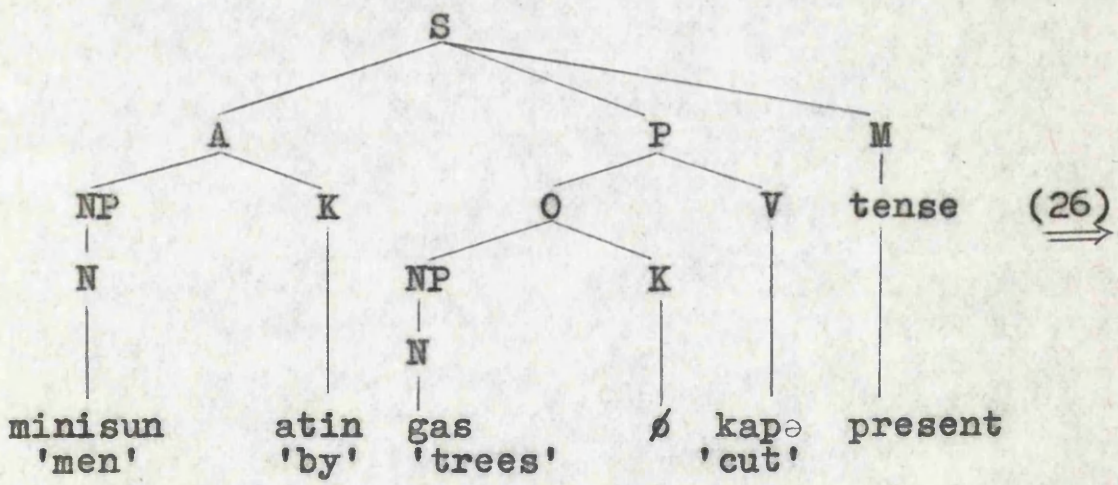
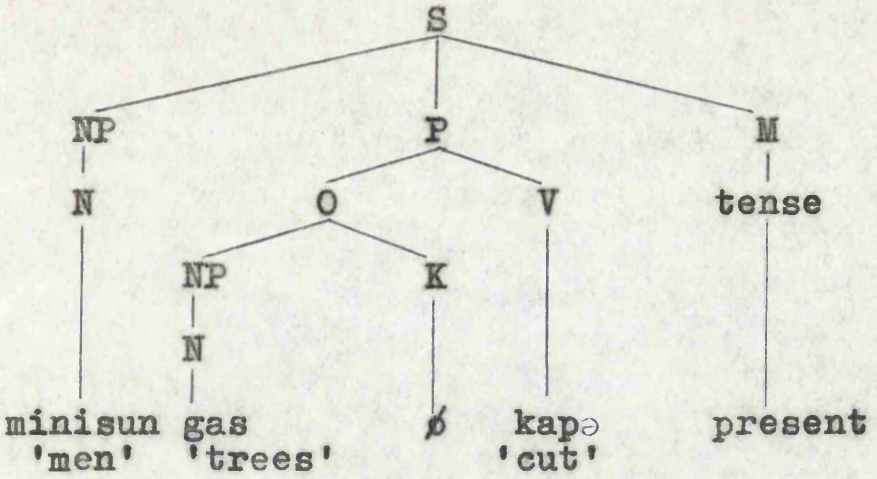
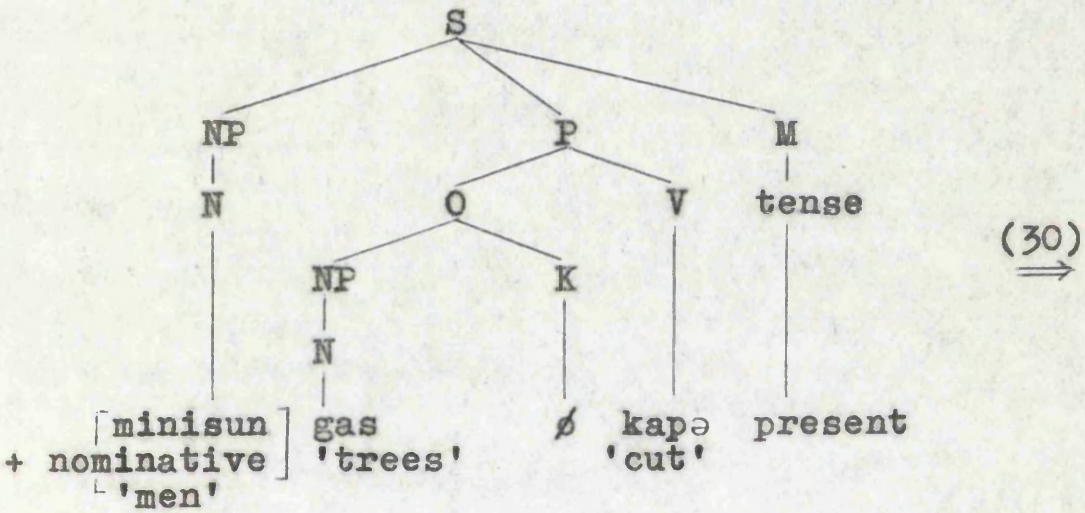


Fig. 7



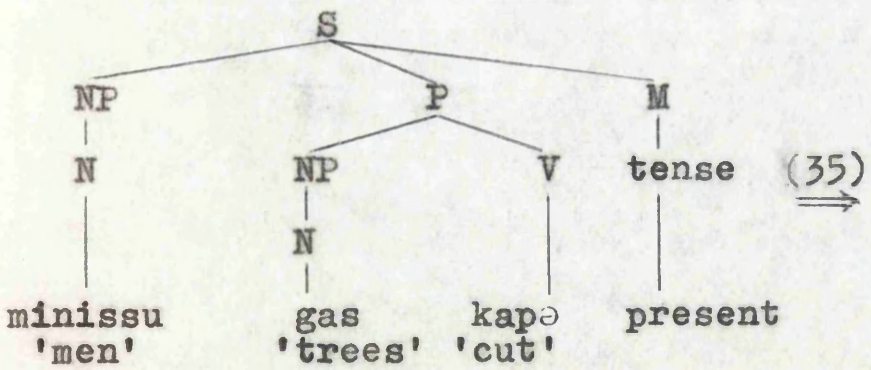
(27) ⟹

Fig. 8



(30) ⟹

Fig. 9



(35) ⟹

Fig. 10.

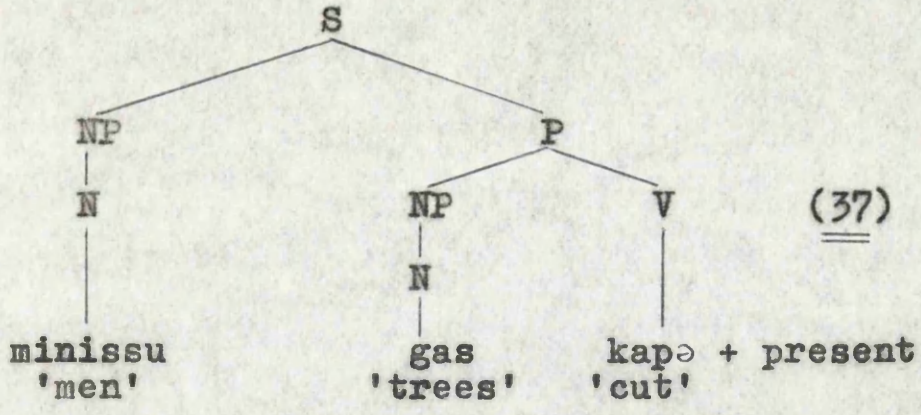

S
NP
P
N
NP
V
(37)
N
minissu
'men'
gas
'trees'
kapə + present
'cut'

Fig. 11.

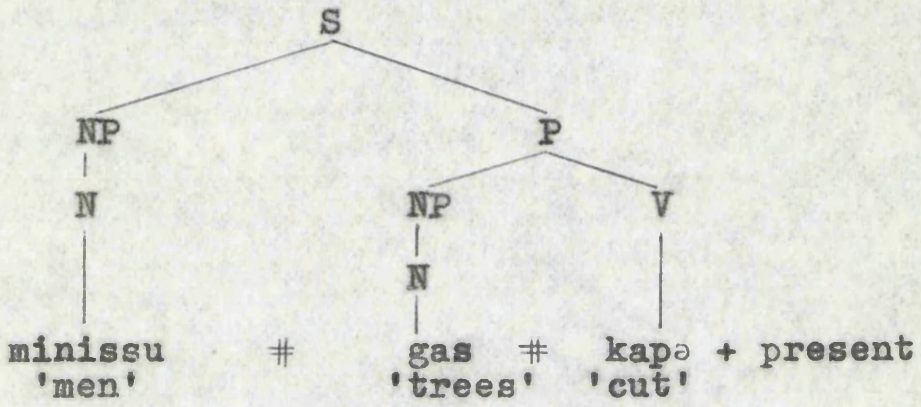

S
NP
P
N
NP
V
N
minissu
'men'
#
gas
'trees'
#
kapə + present
'cut'

Fig. 12

Derivation 3

3. gas minisun atin kæpenəva

'The trees are cut by the men'

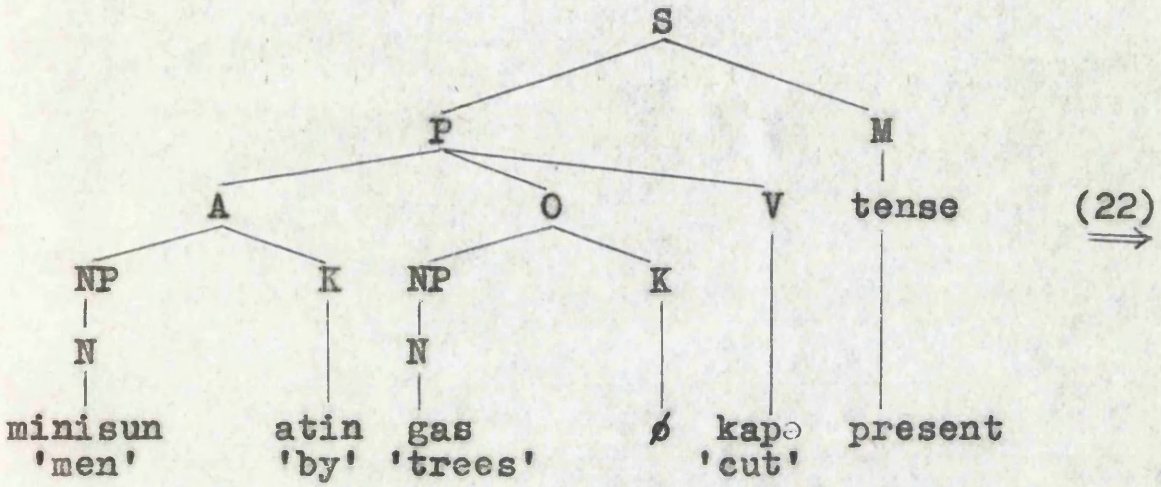


Fig. 13. Deep Structure of Sentence 3. Generated by Rules 1-10 and Lexical Insertion

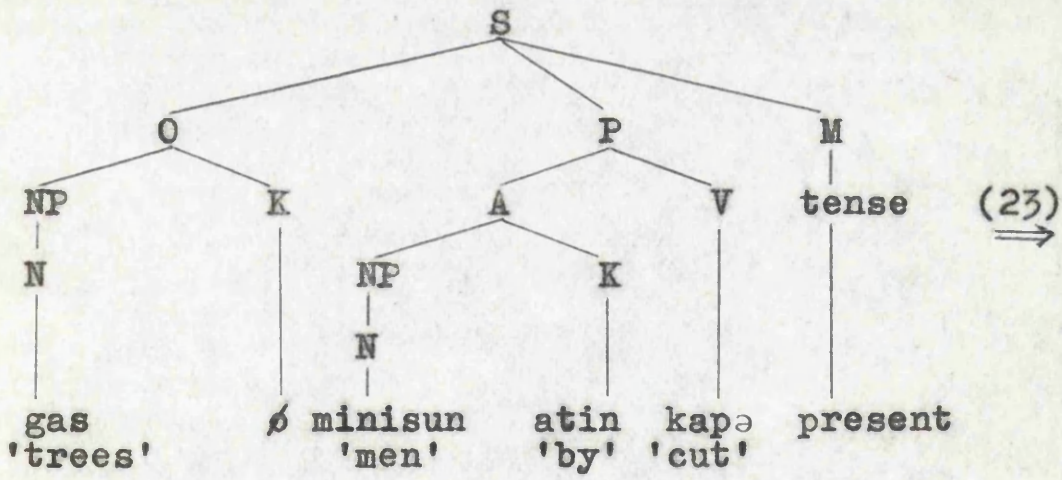


Fig. 14.

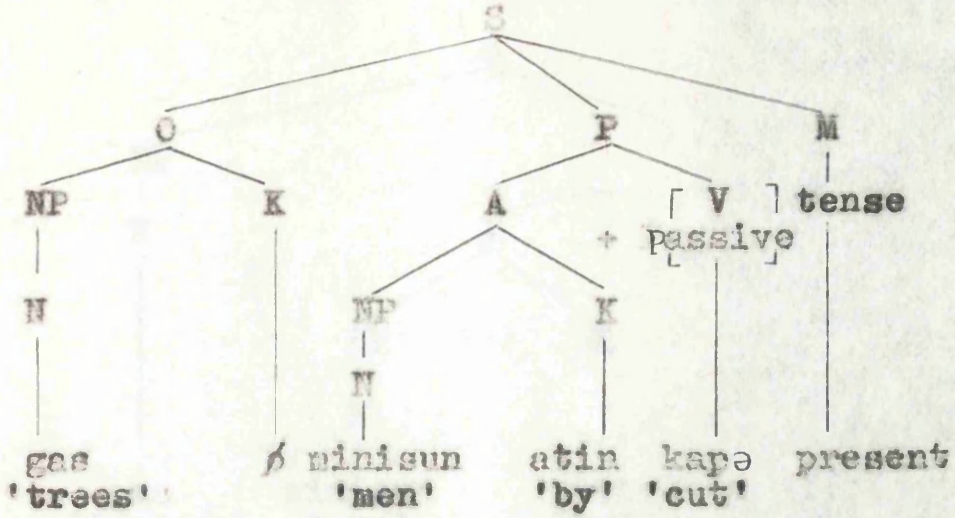

S
O
P
M
NP
K
A
[V]
tense
(26)
+ passive
N
NP
K
N
gas
ø minisun
atin
kapə
present
'trees'
'men'
'by'
'cut'

Fig. 15

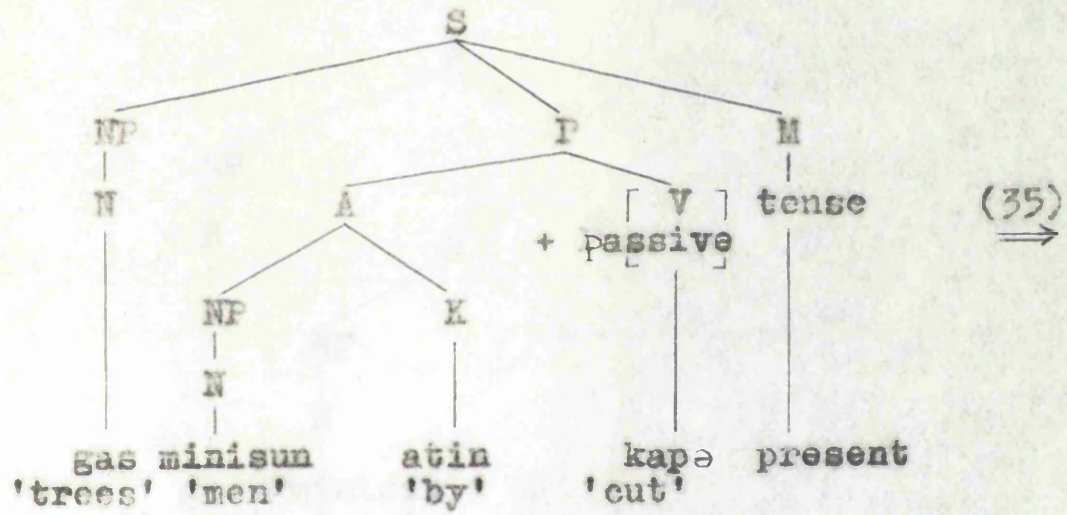

S
NP
P
M
N
A
[V]
tense
(35)
+ passive
NP
K
N
gas
minisun
atin
kapə
present
'trees'
'men'
'by'
'cut'

Fig. 16

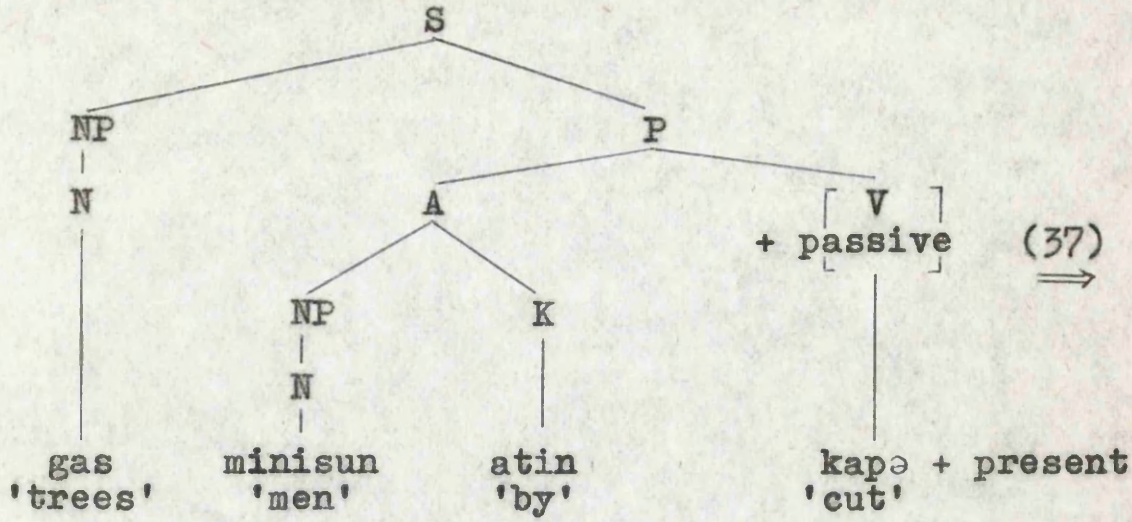

S
NP
P
N
A
[V]
+ passive
(37)
⟹
NP
K
N
gas
'trees'
minisun
'men'
atin
'by'
kapə + present
'cut'

Fig. 17

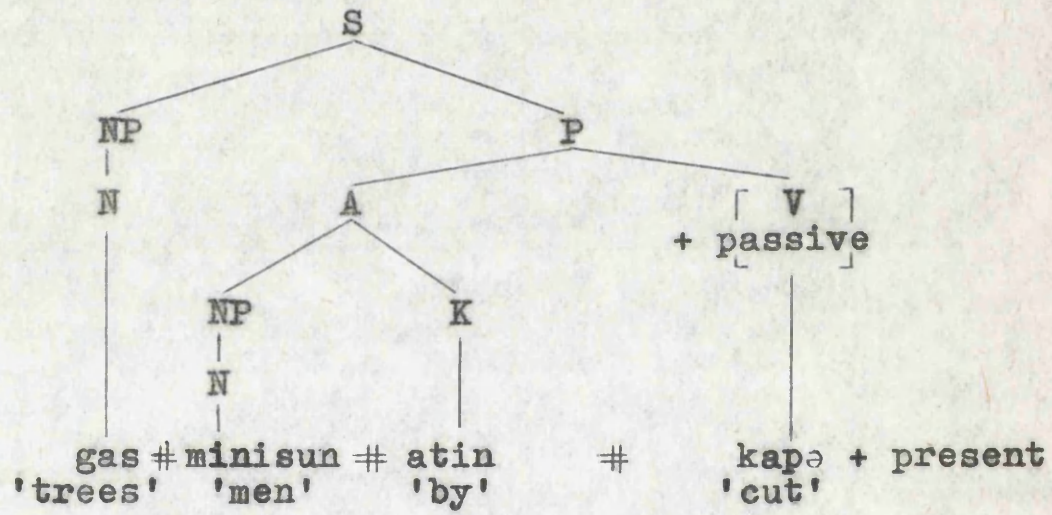

S
NP
P
N
A
[V]
+ passive
NP
K
N
gas # minisun # atin # kapə + present
'trees' 'men' 'by' 'cut'

Fig. 18.

Derivation 4. Primary Causative

4. daDəyaNkaruvo satun marənəva

'Hunters kill animals'

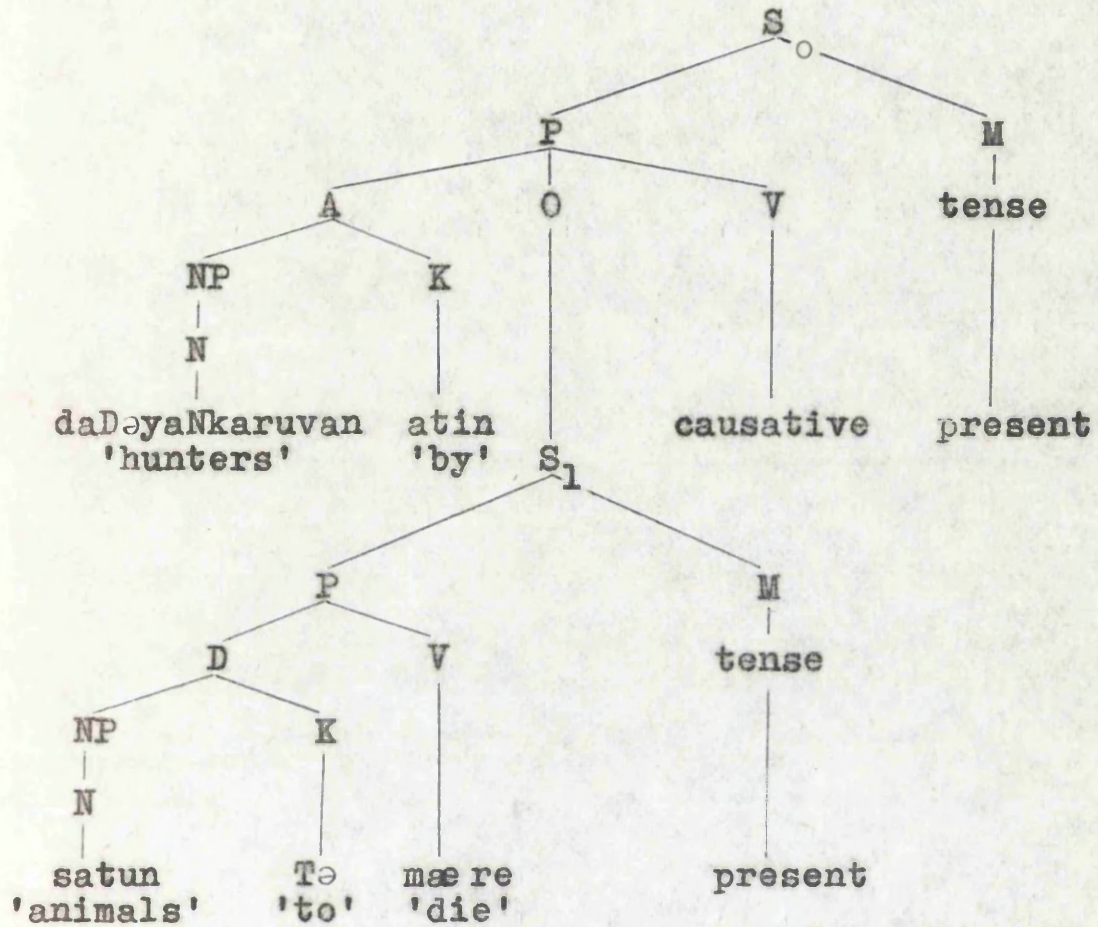


Fig. 19. Deep Structure of Sentence 4. Generated by Rules 1-10 and Lexical Insertion

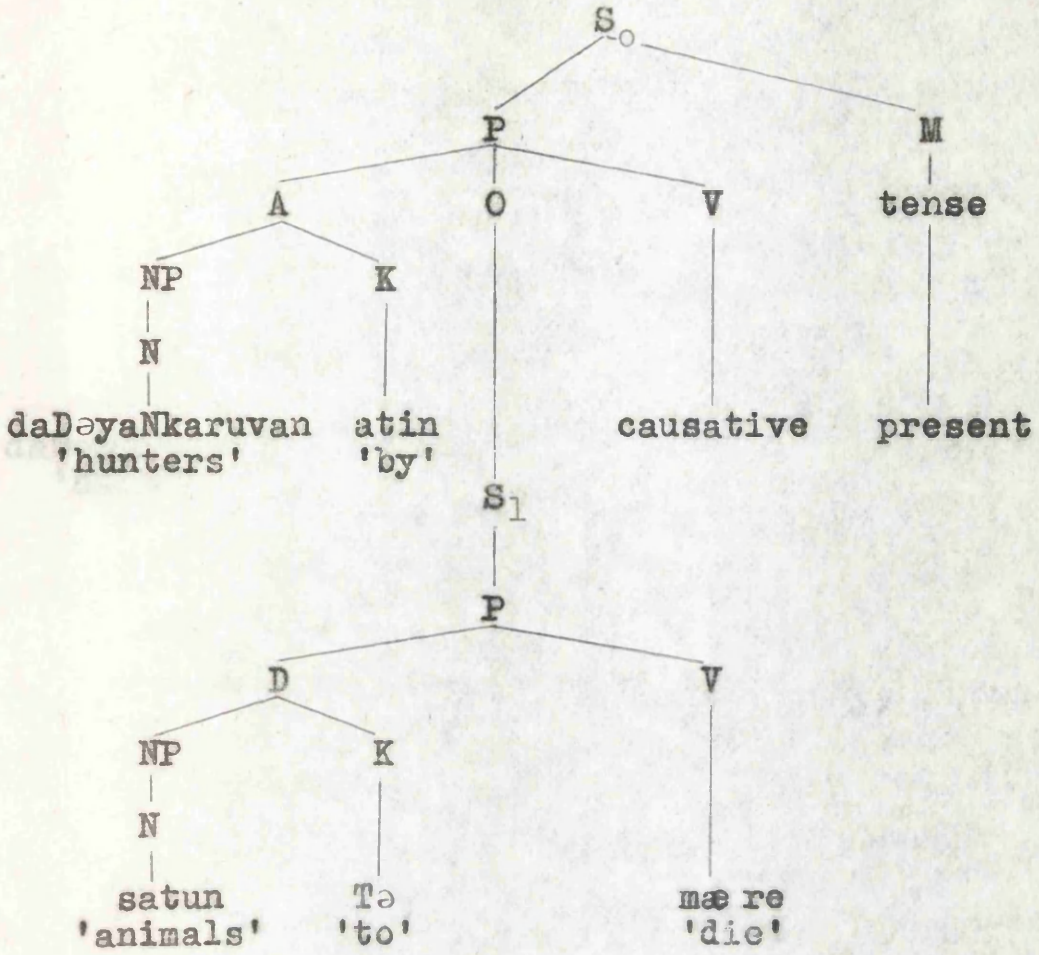
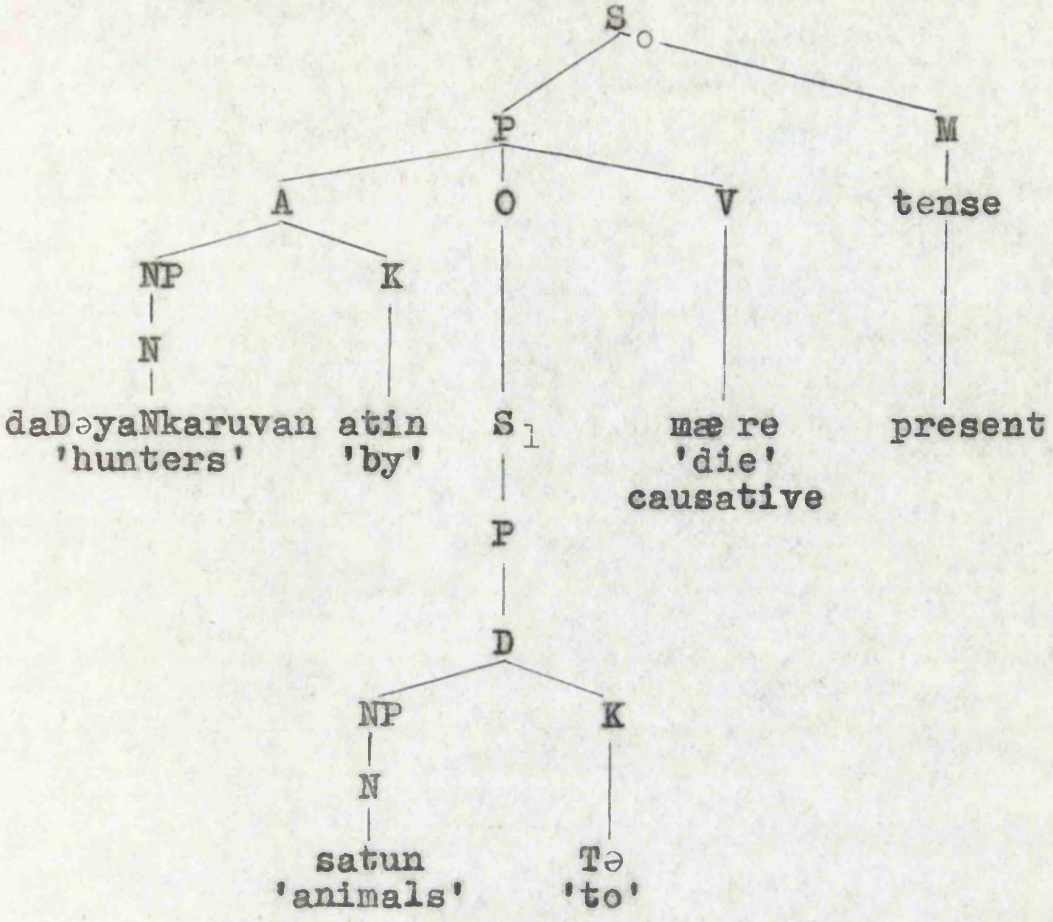

S0
P
M
A
O
V
tense
NP
K
N
daDəyaNkaruvan
'hunters'
atin
'by'
causative
present
S1
(12)
P
D
V
NP
K
N
satun
'animals'
Tə
'to'
mæ re
'die'

Fig. 20


S
P
M
A
O
V
tense
NP
K
N
daDəyaNkaruvan
'hunters'
atin
'by'
S1
mæ re
'die'
causative
present
P
D
NP
K
N
satun
'animals'
Tə
'to'

(13) ⟹

Fig. 21.

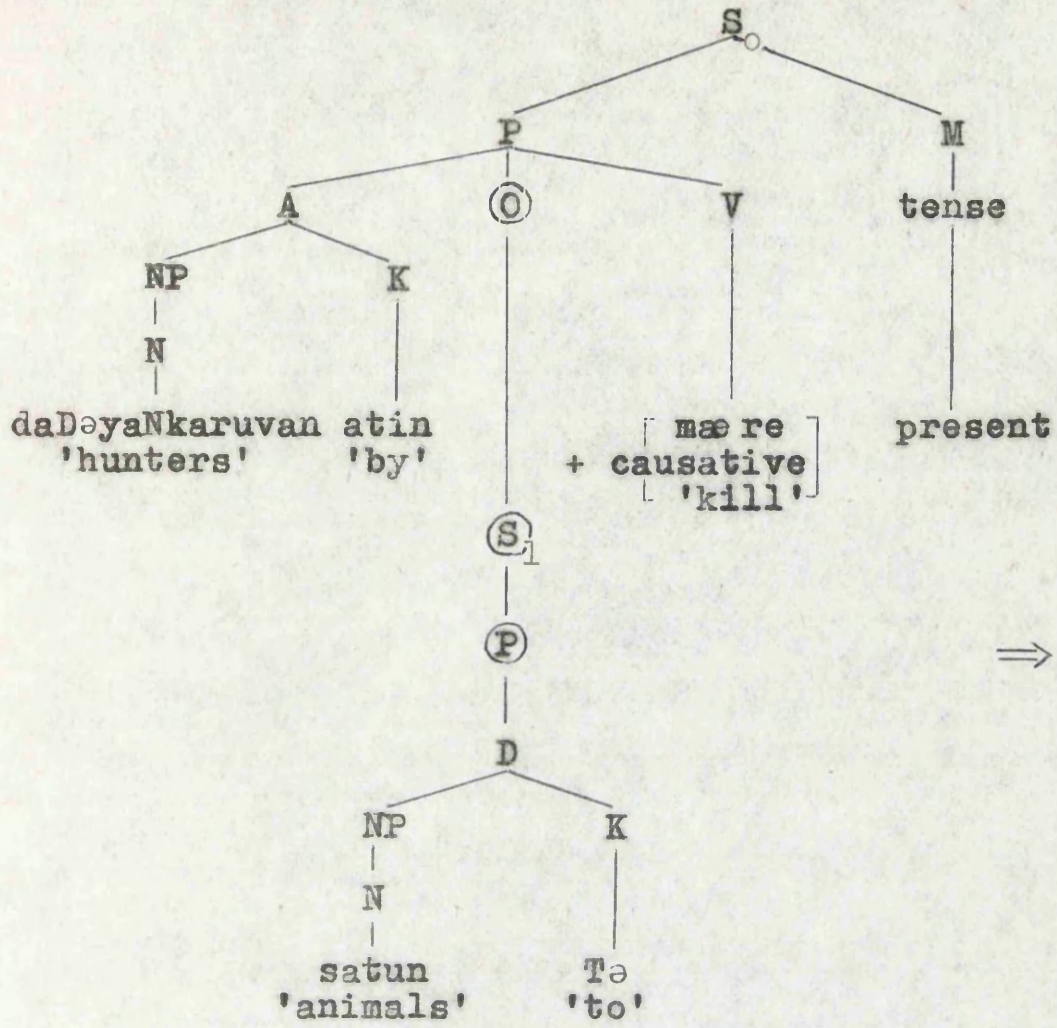


Fig. 22.

The circled category symbols in Figure 22 are removed. (for the principle which has the effect of removing symbols of this type, see pp 215-216 of this thesis).

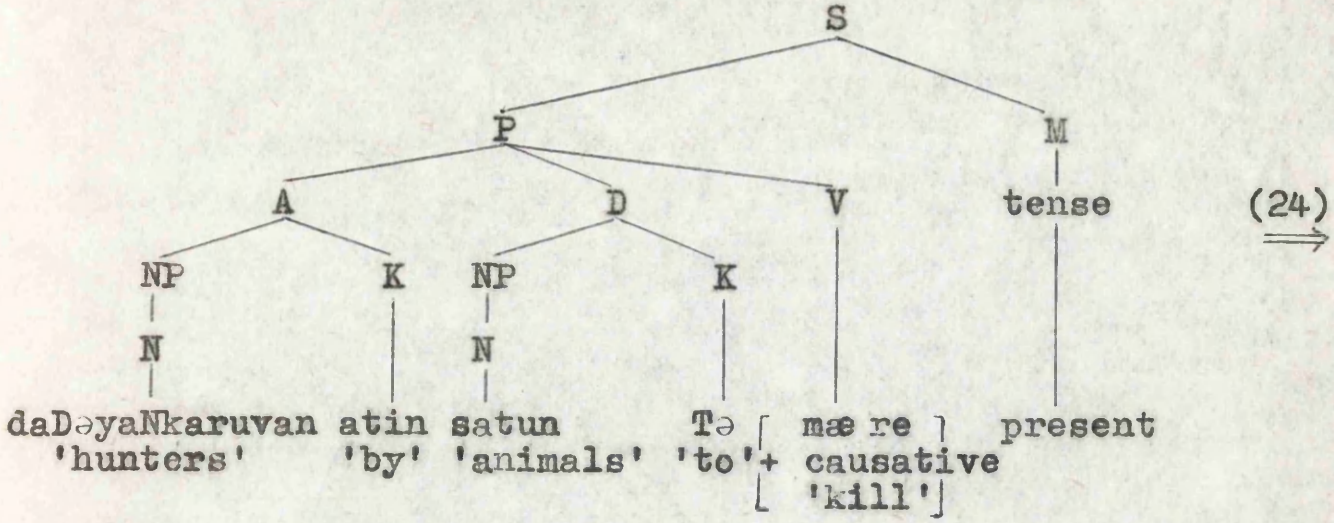

S
P
M
A
D
V
tense
(24)
NP
K
NP
K
N
N
daDəyaNkaruvan atin satun Tə [mæ re] present
'hunters' 'by' 'animals' 'to' + causative
['kill']

Fig. 23

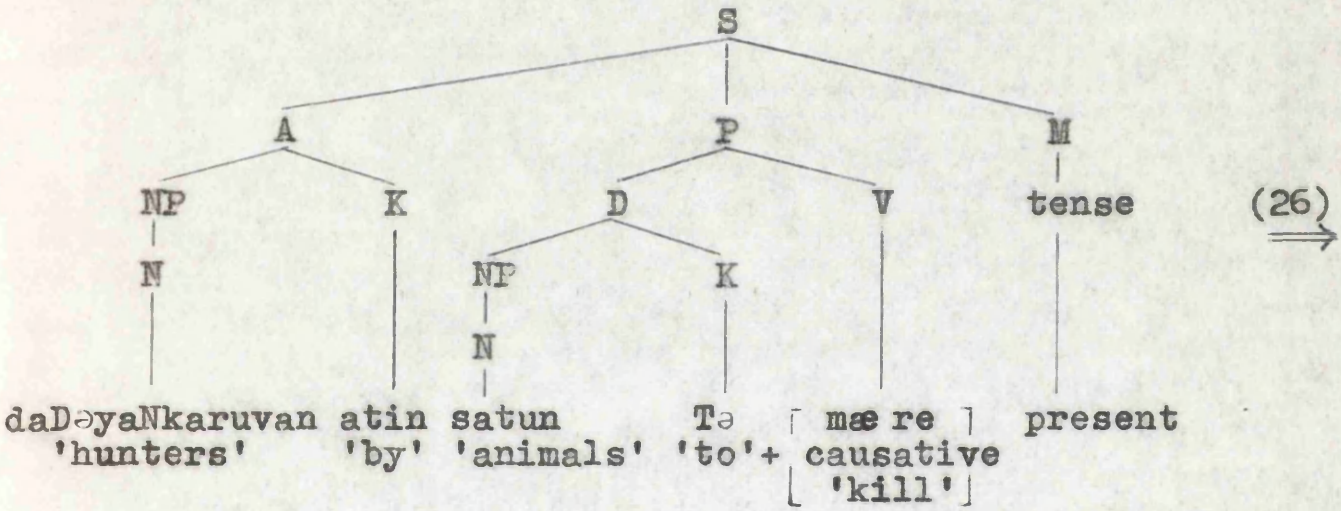

S
A
P
M
NP
K
D
V
tense
(26)
N
NP
K
N
daDəyaNkaruvan atin satun Tə [mæ re] present
'hunters' 'by' 'animals' 'to' + causative
['kill']

Fig. 24.

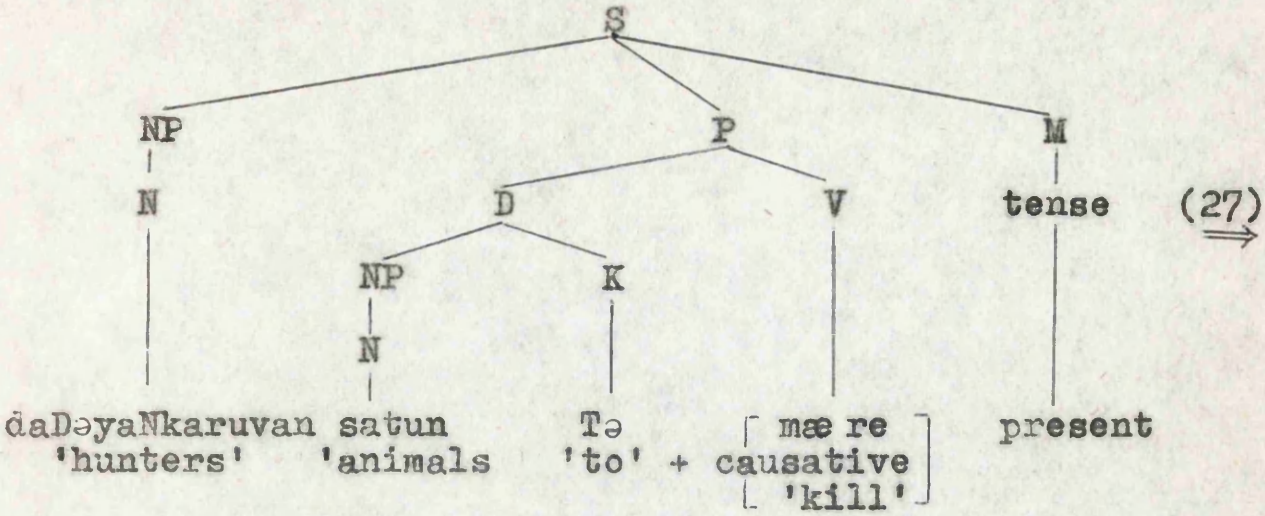

S
NP
P
M
N
D
V
tense
(27)
NP
K
N
daDəyaNkaruvan
'hunters'
satun
'animals
Tə
'to'
+
mæ re
causative
'kill'
present

Fig. 25

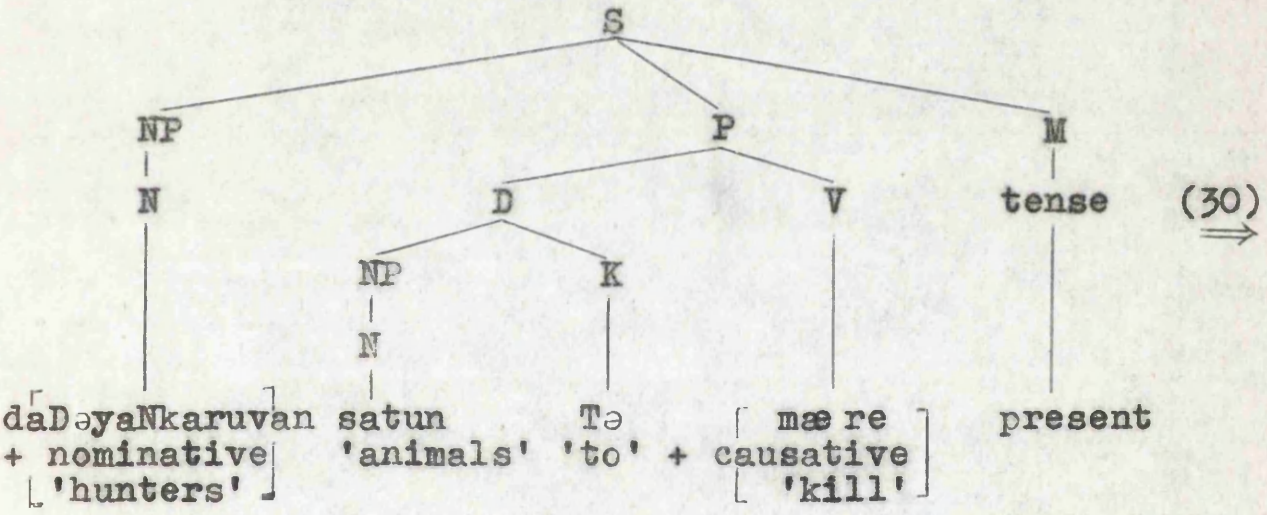

S
NP
P
M
N
D
V
tense
(30)
NP
K
N
daDəyaNkaruvan
+ nominative
'hunters'
satun
'animals'
Tə
'to'
+
mæ re
causative
'kill'
present

Fig. 26.

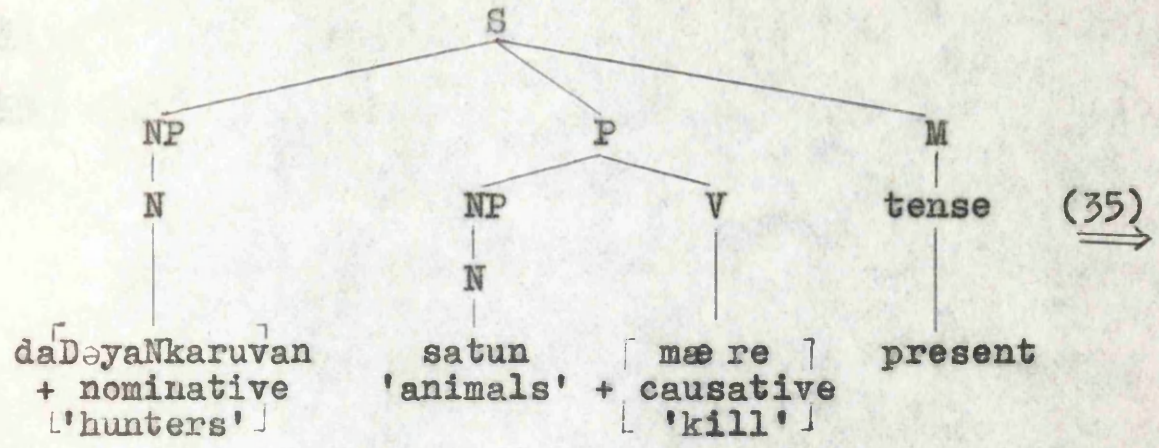


Fig. 27

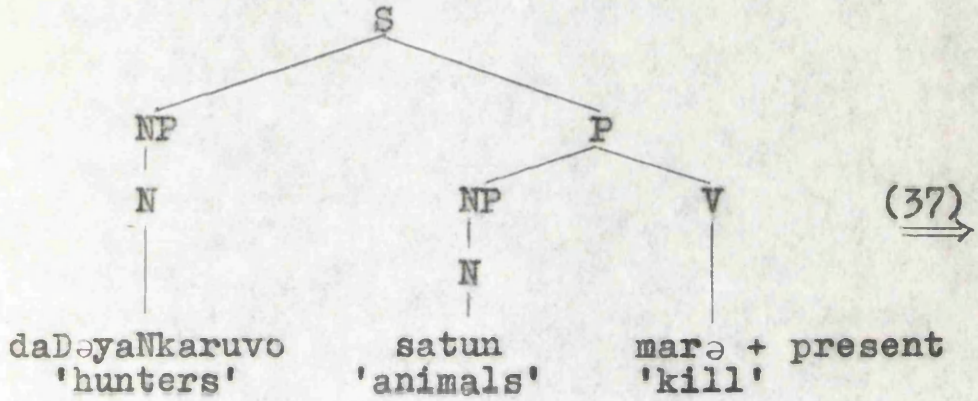


Fig. 28

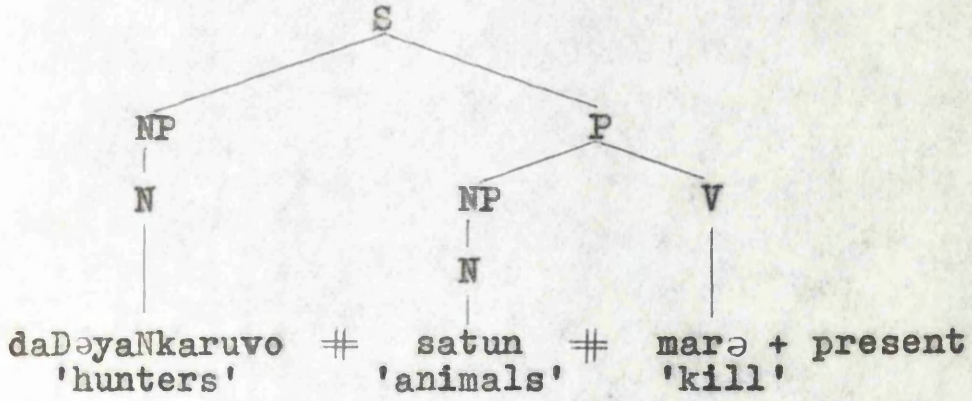


Fig. 29

Derivation 5

5. akka malli t ekkə iskooleTə giya

'(My) elder sister went to school with (my) brother'

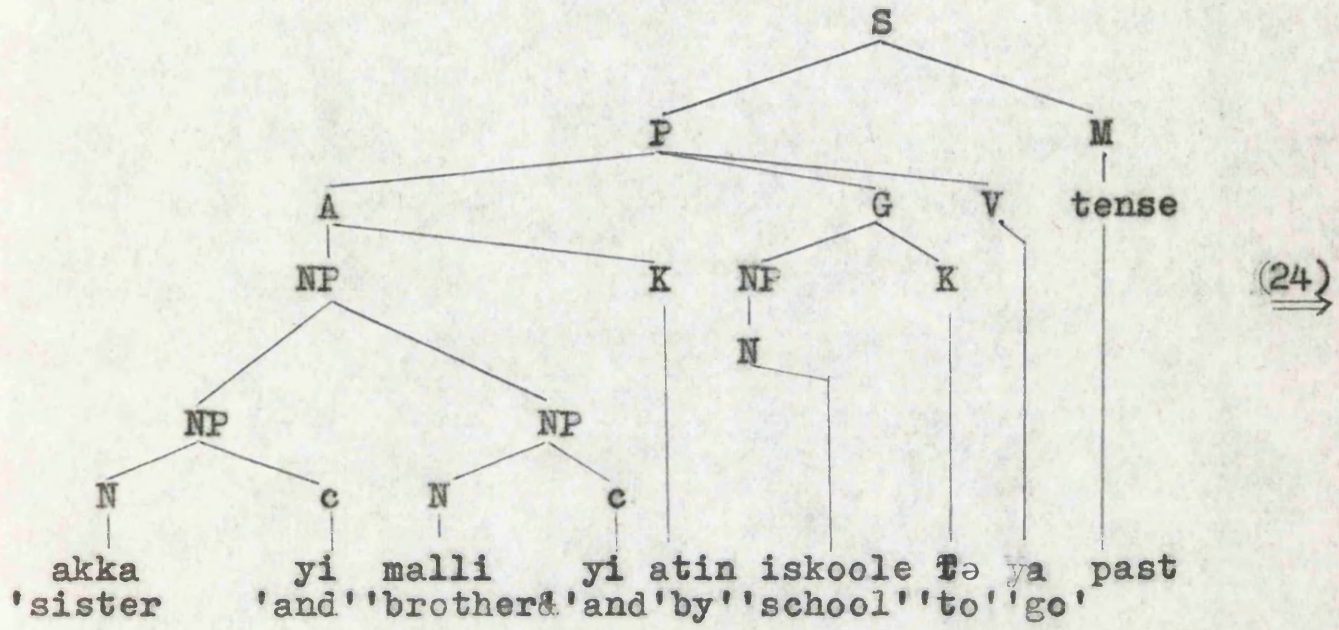


Fig. 30. Deep Structure of Sentence 5 Generated by Rules 1-10 and Lexical Insertion

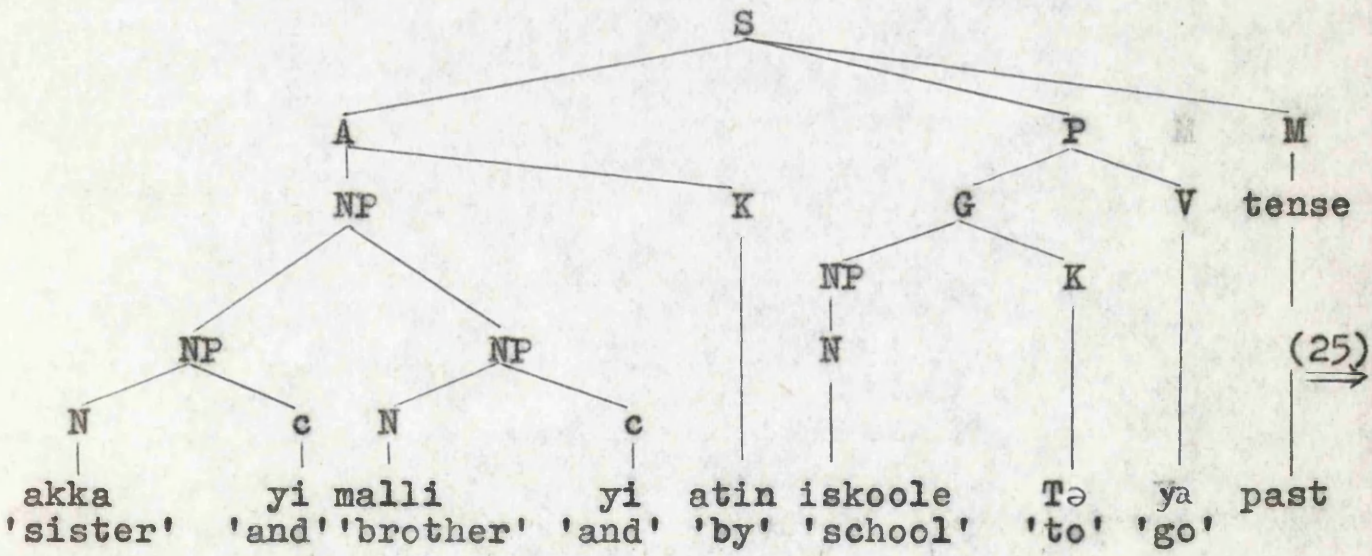
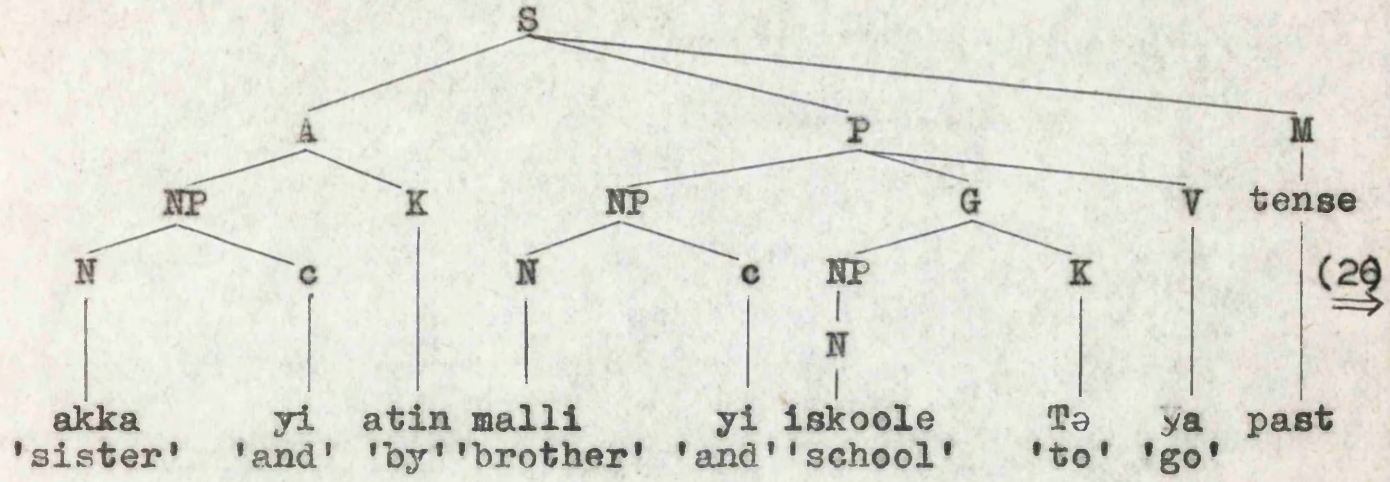
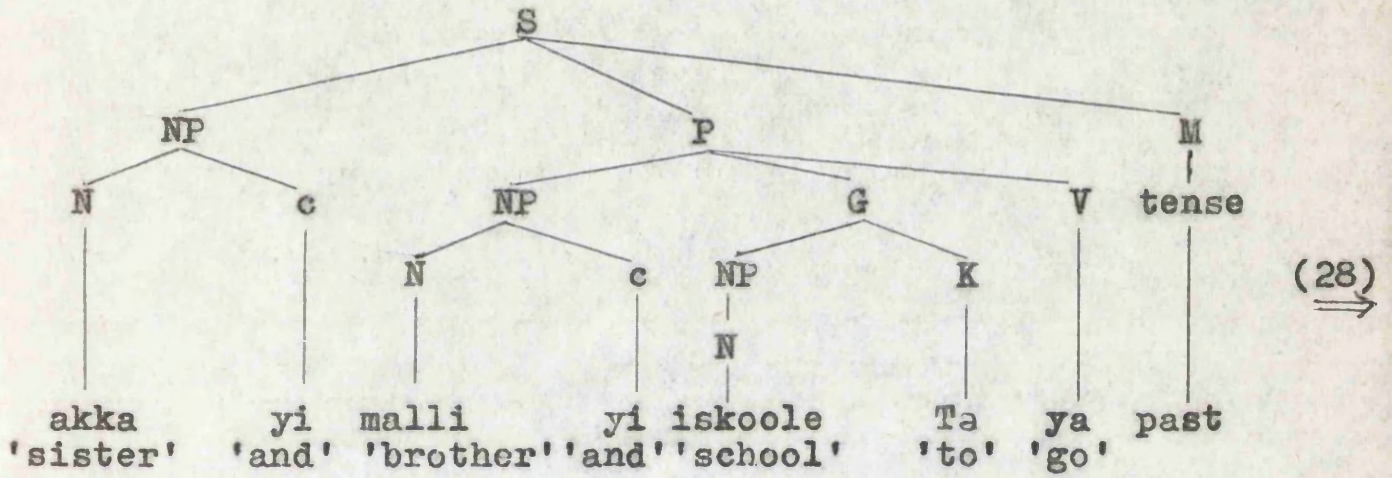


Fig. 31.



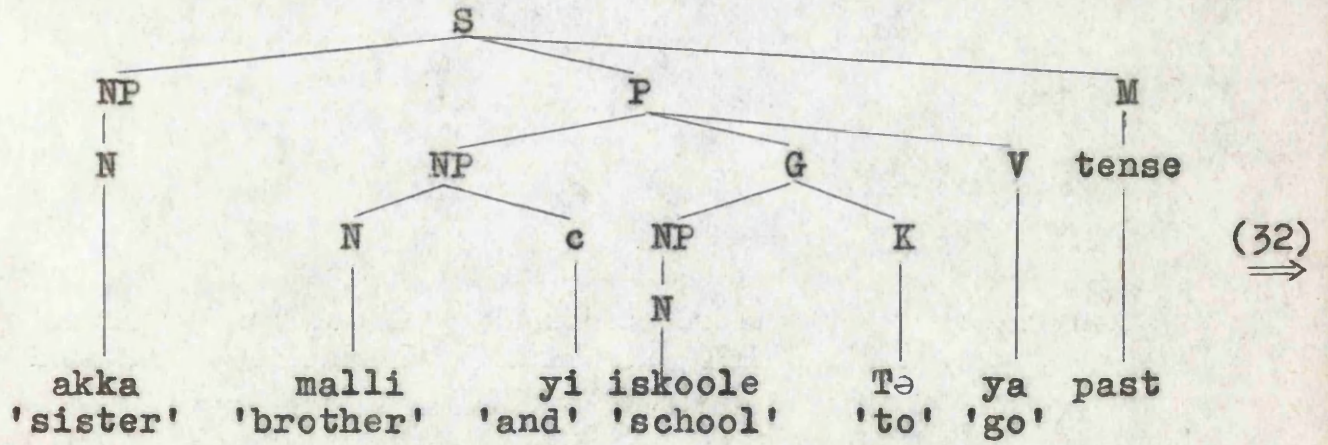
(29) ⇒

Fig. 32



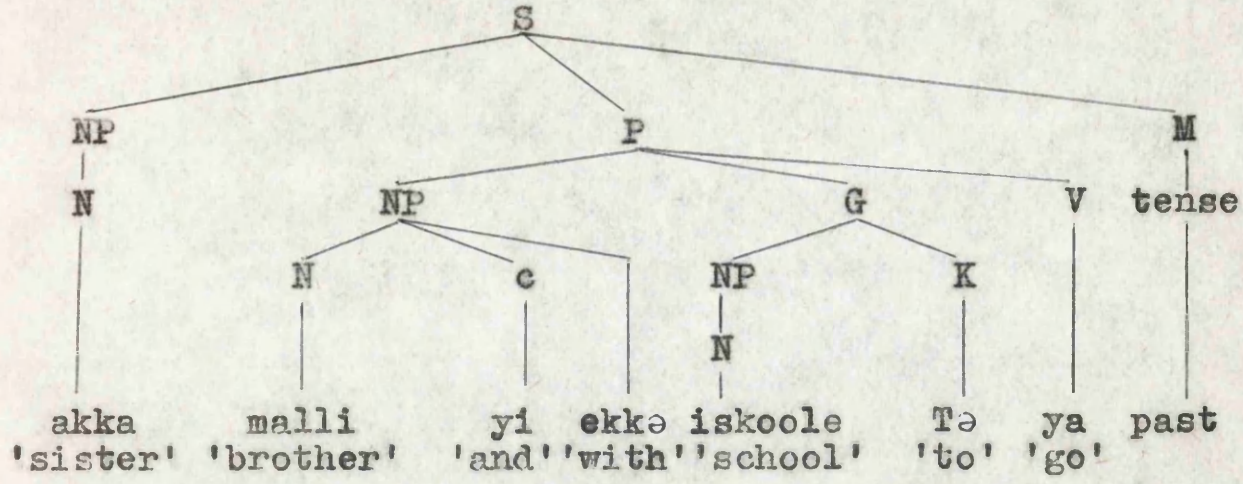
(28) ⇒

Fig. 33



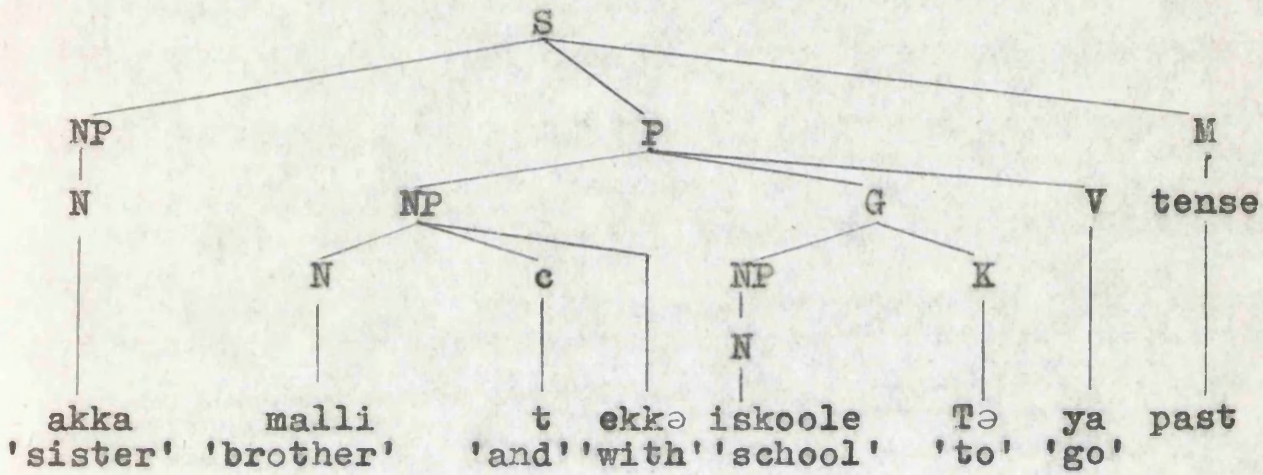
(32) ⇒

Fig. 34



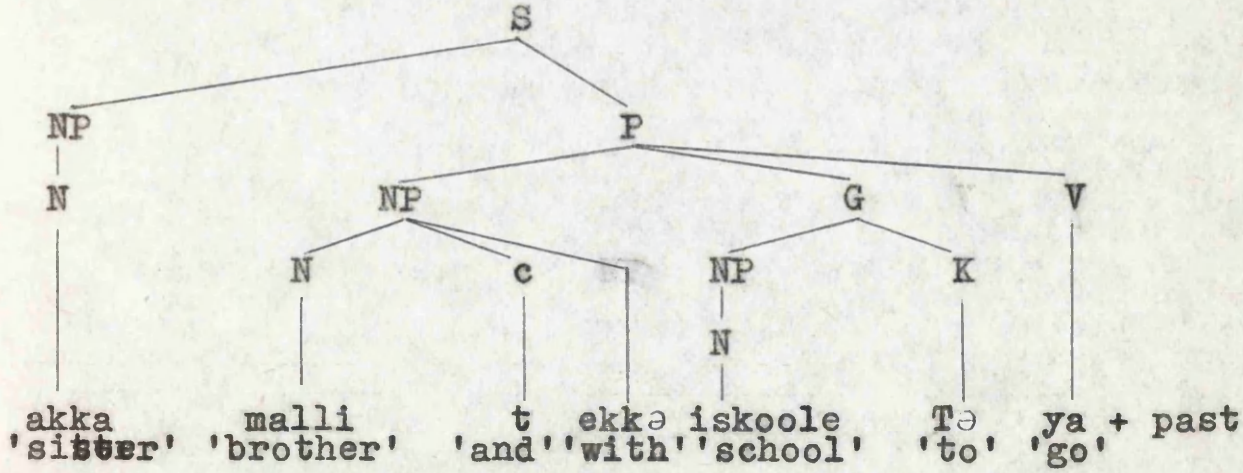
(33) ⟹

Fig. 35



(35) ⟹

Fig. 36



(37) ⟹

Fig. 37

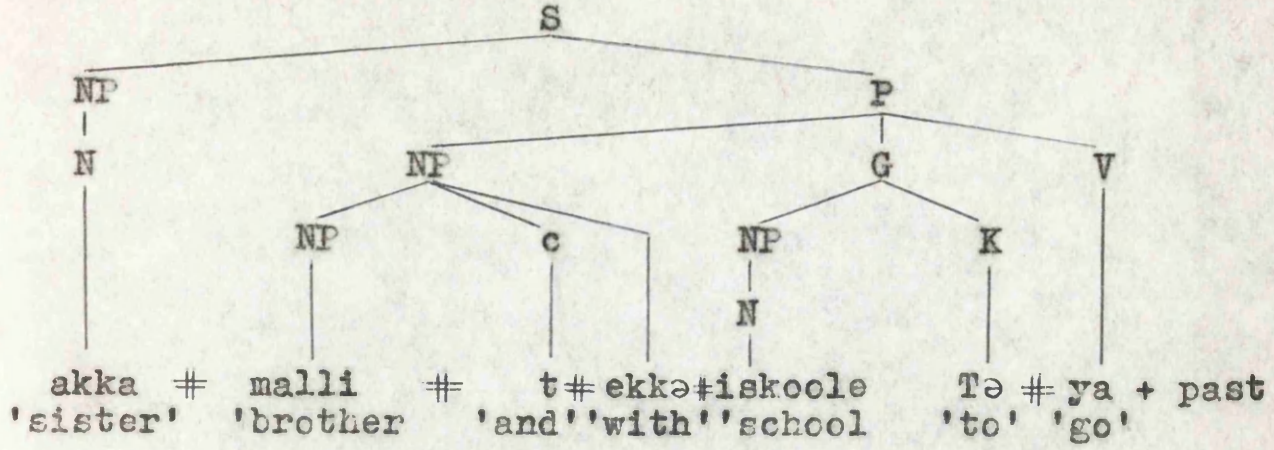

S
NP
P
N
NP
G
V
NP
c
NP
K
N
akka # malli # t # ekkə # iskoole Tə # ya + past
'sister' 'brother 'and' 'with' 'school 'to' 'go'

Fig. 38

PART III

POSSESSIVE MODIFIER

Transformational rules

(i) Tense Erasure

SD: $_{C}[N - {}_{S}[_{P}[_{O}[NP - K]_{O} - {}_{D}[NP - K]_{D} - V]_{P} - tense]_{S} - K]_{C}$

SC: 1 2 3 4 5 6 7 8

OBL $\Rightarrow$

1 2 3 4 5 6 ϕ 8

(ii) Verb Deletion

SD: $_{C}[N - {}_{S}[_{P}[_{O}[NP - K]_{O} - {}_{D}[NP - K]_{D} - V]_{P}]_{S} - K]_{C}$

SC: 1 2 3 4 5 6 7

OBL $\Rightarrow$

1 2 3 4 5 ϕ 7

(iii) Identical Noun-Phrase Erasure

SD: $_{C}[N - {}_{S}[_{P}[_{O}[NP - K]_{O} - {}_{D}[NP - K]_{D}]_{P}]_{S} - K]_{C}$

SC: 1 2 3 4 5 6

OBL $\Rightarrow$

1 ϕ 3 4 5 6

Condition: 1 = 2

When the NP is deleted the case marker associated with it is also removed.

(iv) Permutation

SD: $_{C}[N - [NP - K] - K]_{C}$

SC: 1 2 3 4

OBL $\Rightarrow$

2 3 1 4

(v) Genitive Introduction

SD: $_{C}[NP - _{K}[\underline{Tə}]_{K} - N - K]_{C}$

SC: 1 Tə 2 3

1 ge 2 3 $\xrightarrow{OBL}$

Derivation 6

6 ratn ge pot

'Ratna's book'

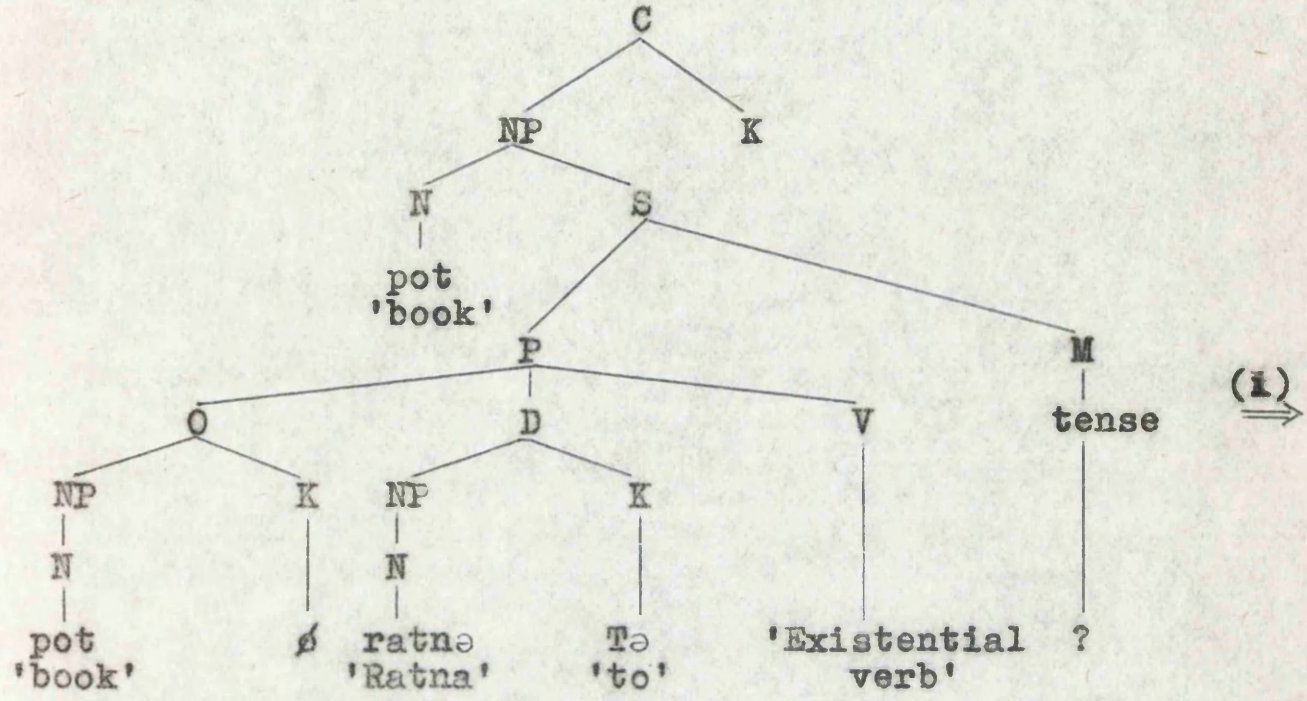


Fig. 39. Deep Structure of Construction 6 Generated by Rules 1-10 (? denotes my uncertainty as to the tense).

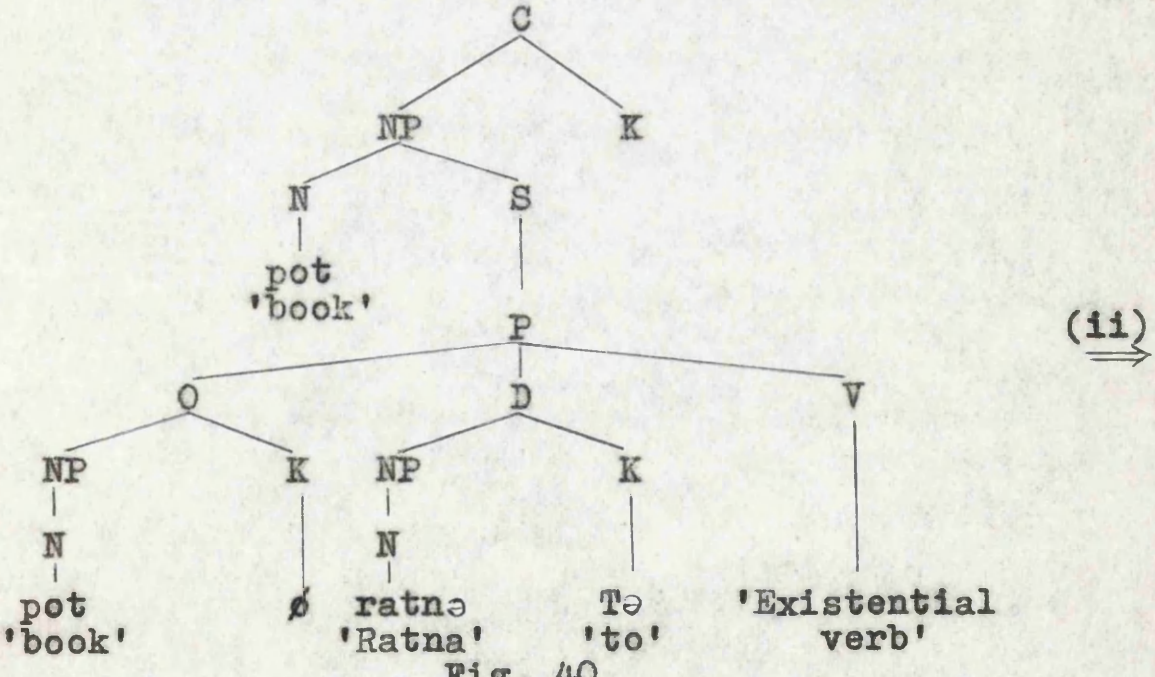
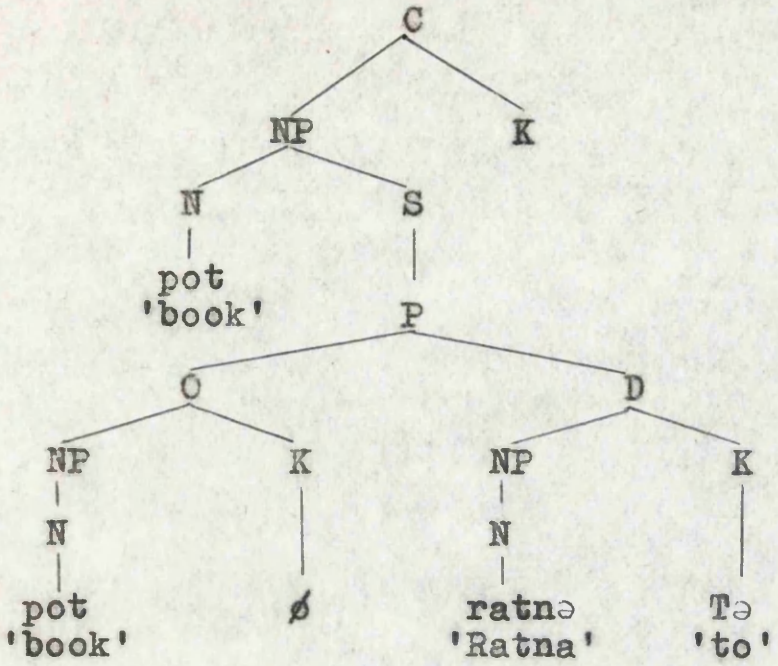
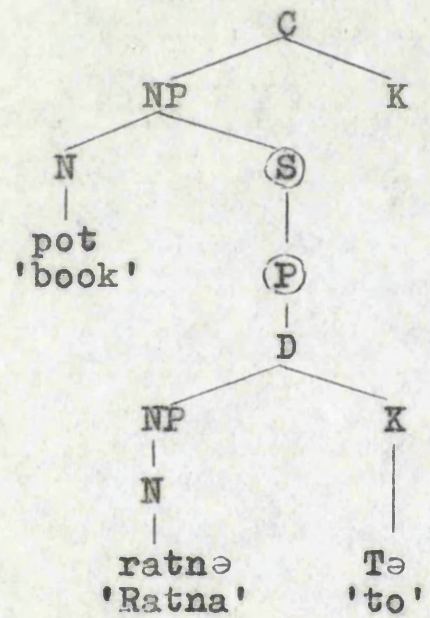


Fig. 40



(iii) ⟹

Fig. 41



⟹

Fig. 42

The circled symbols in Figure 42 are removed. (See pp. 215-216 of this thesis).

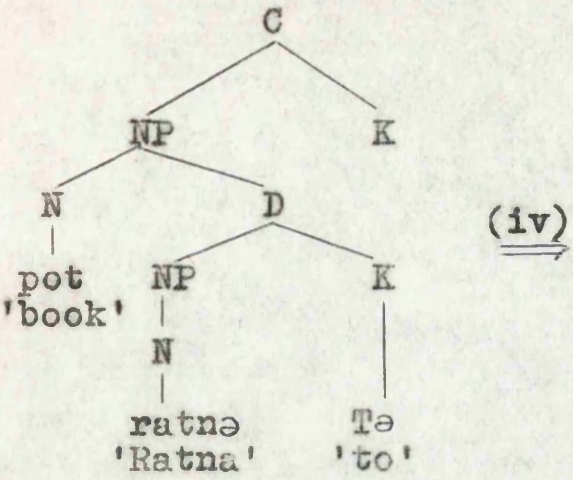


Fig. 43

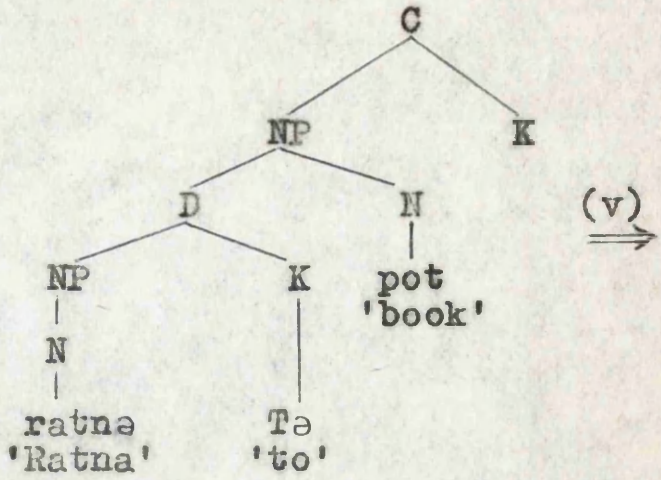


Fig. 44

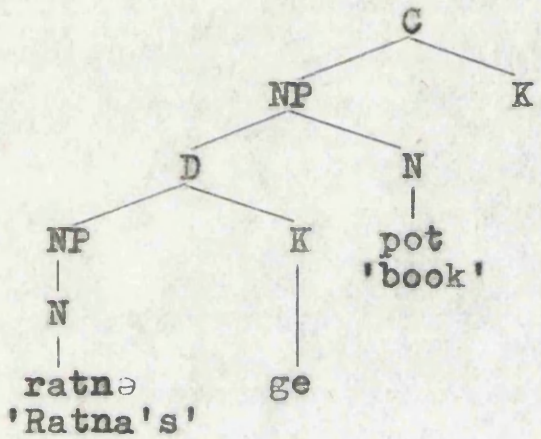


Fig. 45.

SELECTED BIBLIOGRAPHY

Bach, Emmon 1967 'Have and be in English Syntax' Language 43 pp. 462-485.

_____ 1968 'Nouns and NomPhrases' in Emmon Bach and Robert T. Harms (eds) Universals in Linguistic Theory, pp. 90-122.

_____ and Robert T. Harms (eds) 1968 Universals in Linguistic Theory, New York: Holt Rinehart and Winston.

Bierwisch, Manfred and Karl Erich Heidolph (eds)(1970) Recent Developments of Linguistics, The Hague, Mouton and Co.

Bloomfield, Leonard 1935 Language, London

Cassidy, F.G. 1937 'Case in Modern English' Language 13, pp. 240-245.

Chomsky, Noam 1957 Syntactic Structures, The Hague, Mouton

_____ 1958 'A Transformational Approach to Syntax' in A.A. Hill (ed) Proceedings of the Third Texas Conference on Problems of Linguistic Analysis in English, Reprinted in Jerry A. Fodor and Jerrold J. Katz (eds) The Structure of Language: Readings in the Philosophy of Language, pp. 211-245

_____ 1961 'On the Notion 'Rule of Grammar' in Structure of Language and its Mathematical Aspects. Proceedings of Symposia in Applied Mathematics Vol. xii. Reprinted in Jerry A. Fodor and Jerrold J. Katz (eds) The Structure of Language: Readings in the Philosophy of Language, pp. 119-136.

Chomsky, Noam 1965 Aspects of the Theory of Syntax, Cambridge Massachusetts: M.I.T.

de Silva, M.W. Sugathapala 1967 'Effects of Purism on the Evolution of Written Language: Case History of the Situation in Sinhalese', Linguistics 36 pp. 5-17

Dineen, S.J. Francis P, (1966) Report of the Seventeenth Annual Round Table Meeting on Linguistics and Language Studies, Washington: George Town University Press.

Dougherty, Ray C. 1970 'Review Article' in Foundations of Language 6 (1970) pp. 505-561.

Ferguson, Charles A. 1959 'Diglossia' Word 15 (1959) pp. 325-340.

Fillmore, Charles J. 1966a 'Towards a Modern Theory of Case'. The Ohio State University Project of Linguistic Analysis Report No. 13, pp. 1-24. Reprinted in David A. Reibel and Sanford A. Schane (eds.) Modern Studies in English: Readings in English Transformational Grammar, pp. 361-375.

_____1966b 'A Proposal Concerning English Prepositions' in Francis P. Dinneen S.J. (ed.) Report of the Seventeenth Annual Round Table Meeting on Linguistics and Language Studies, pp. 19-33.

_____1968a 'The Case for Case' in Emmon Bach and Robert T. Harms (eds.) Universals in Linguistic Theory, pp. 1-88.

_____1968b 'Lexical Entries for Verbs' in Foundations of Language 4 (1968) pp. 373-393.

_____1969 'Types of Lexical Information' in F. Kiefer (ed.) Studies in Syntax and Semantics pp. 109-137.

_____1970a 'Subjects, Speakers and Roles' in Working Papers in Linguistics No. 4 (May 1970) Computer and Information Science Research Centre, The Ohio State University.

_____1970b 'The Grammar of Hitting and Breaking' in Roderick A. Jacobs and Peter S. Rosenbaum (eds.) Readings in English Transformational Grammar, pp. 120-133.

Foder, Jerry A. and Jerrold J. Katz (eds.) 1964 The Structure of Language: Readings in the Philosophy of Language, Englewood Cliffs, New Jersey: Prentice Hall.

Gair, James W. 1968 'Sinhalese Diglossia' in Anthropological Linguistics Vol. 10, Np. 8, Nov. 1968, pp. 1-15.

Gleason, H.A. 1961 An Introduction to Descriptive Linguistics rev. ed. New York: Holt, Rinehart and Winston.

Greenberg, Joseph H. 1963 'Some Universals of Grammar with particular reference to the order of meaningful elements' in Universals of Language (ed.) Joseph H. Greenberg, Cambridge Massachusetts. M.I.T. Second Paperback Edition pp. 73-113.

Halliday, M.A.K. 1966 'Some notes on 'deep' grammar' in Journal of Linguistics Vol. 2, pp. 57-67.

_____ 1970 'Language Structure and Language Function' in John Lyons (ed.) New Horizons in Linguistics, Penguin, pp. 140-165.

Hamp, Eric P., Fred W. Householder and Robert P. Austerliz (eds)1966 Readings in Linguistics II, Chicago:

Huddleston, Rodney 1970 'Some Remarks on Case-Grammar' in Linguistic Inquiry, Vol. 1, No. 4, October 1970, pp. 501-511.

Jacobs, Roderick A. and Peters S. Rosenbaum 1968 English Transformational Grammar, London: Ginn & Com.

_____(1970) (eds) Readings in English Transformational Grammar, Waltham, Massachusetts: Ginn and Co.

Jesperson, Otto 1925 The Philosophy of Grammar, London:

Katz, Jerrold J. and Paul M. Postal 1964 — An Integrated Theory of Linguistic Descriptions, Cambridge, Massachusetts: M.I.T.

Katz, Jerrold J. 1966 — The Philosophy of Language, New York: Harper and Row.

Kekulawala, S.L. 1964 — The Phonology of the Noun in Colloquial Sinhalese. Unpublished M.A. Thesis, University of London.

Kiefer, F. (ed.) 1969 — Studies in Syntax and Semantics, Dordrecht: D. Reidel Publishing Co.

Kiparsky, P. and J.F. Staal 1969 — 'Syntactic and Semantic relations in Panini' in Foundations of Language 5 (1969) pp. 83-117.

Kiparsky, Paul and Carol Kiparsky — 'Fact' in Manfred Bierswisch and Karl Erich Heidolph (eds.) Recent Developments of Linguistics, pp. 143-173.

Lakoff, George 1965 — On the nature of Syntactic Irregularity. The Computation Laboratory of Harvard University Mathematical Linguistics and Automatic Translation, Report No. NSF 16. Cambridge, Massachussets. Later published as: Syntactic Irregularity, New York: Holt, Rinehart and Winston.

_____ 1968 — 'Instrumental Adverbs and the Concept of Deep Structure' in Foundations of Language 4 (1968) pp. 4-29.

_____ 1970 — Pronominalization, Negation and the Analysis of Adverbs' in Roderick A. Jacobs and Peter S. Rosenbaum (eds.) Readings in English Transformational Grammar, pp. 145-165.

_____ and John Robert Ross 1966 — 'Criterion for Verb Phrase Constituency' in The Computation Laboratory of Harvard University Mathematical Linguistic and Automatic Translation, Report No. NSF 17.

Lakoff, George and Stanley Peters 1966 'Phrasal Conjunction and Symmetric Predicates' in David A. Reibel and Sanford A. Shane (eds.) Modern Studies in English: Readings in Transformational Grammar, pp. 113-143. Reprinted from The Computation Laboratory of Harvard University Mathematical Linguistics and Automatic Translation Report No. NSF 17, pp. VI-1 to VI-49.

Langacker, Ronald W. 1967 Language and Its Structure: Some Fundamental Linguistic Concepts, New York: Harcourt, Brace and World Inc.

Langendoen, Terence D. 1966 'The Syntax of the English Expletive 'IT'' in Francis P. Dinneen S.J. (ed.) Report of the Seventeenth Annual Round Table Meeting on Linguistics and Language Studies, pp. 207-216.

_____ 1969 The Study of Syntax: The Generative-Transformational Approach to the Structure of American English, New York: Holt, Rinehart and Winston Inc.

Lees, Robert B. 1960 The Grammar of English Nominalizations (identical with International Journal of American Linguistics XXVI No. 3 Part II) The Hague: Mouton 1968 edition.

_____ 'On Very Deep Grammatical Structure' in Roderick A. Jacobs and Peter S. Rosenbaum (eds.) Readings in English Transformational Grammar, pp. 134-142.

Lehiste, Ilse 1969 "Being' and 'Having' in Estonian' in Foundations of Language 5 (1969) pp. 324-341.

Lyons, John 1966 'Towards a Notional Theory of the Parts of Speech' Journal of Linguistics 2 pp. 209-236.

_____ 1967 'A Note on Possessive, Existential and Locative Sentences' in Foundations of Language 3 (1967) pp. 390-396.

_____ 1968 Introduction to Theoretical Linguistics London: Cambridge University Press.

Lyons, John (ed). 1970 New Horizons in Linguistics, Penguin.

M
McCawley, James D. 1968a 'The Role of Semantics in Grammar' in Emmon Bach and Robert T. Harms (eds.) Universals in Linguistic Theory, pp. 125-169.

_____ 1968b 'Lexical Entries in a Transformational Grammar without Deep Structure' in Bill J. Darden (eds.) Papers from the Fourth Regional Meeting of the Chicago Linguistic Society, pp. 71-80, Chicago: Linguistics Department, University of Chicago.

_____ 1970 'English as a VSO Language' in Language 46, pp. 286-299.

Postal, Paul M. (1964) 'Underlying and Superficial Linguistic Structure' in Harvard Educational Review, Vol. 34-2, Spring 1964. Reprinted in David A. Reibel and Sanford A. Schane (eds.) Modern Studies in English: Readings in Transformational Grammar, pp. 19-37.

Reibel, David A. and Sanford A. Schane 1969 Modern Studies in English: Readings in Transformational Grammar, Englewood Cliffs, New Jersey, Prentice-Hall.

Robins, R.H. 1961 'Syntactic Analysis' in Archivum linguisticum 13, pp. 78-89. Reprinted in Eric P. Harp, Fred W. Householder and Robert P. Austerliz (eds.) 1966 Readings in Linguistics II, pp. 386-395.

_____ 1964a General Linguistics: An Introductory Survey, London: Longmans.

_____ 1964b 'Ancient Grammarians and Modern Linguists' in Didaskalos I, pp. 81-89. Reprinted in R.H. Robins (1970) Diversions of Bloomsbury pp. 101-111, Amsterdam: North-Holland Publishing Co.

Ross, John Robert 1966 'A Proposed Rule of Tree-Pruning' in David A. Reibel and Sanford A. Schane (eds.) Modern Studies in English: Readings in Transformational Grammar, pp. 288-299.

Reprinted from The Computation Laboratory of Harvard University Mathematical Linguistics and Automatic Translation Report No. NSF 17, pp. IV-1 to IV-18.

Staal J.F. 1967 Word Order in Sanskrit and Universal Grammar, Dordrecht: D. Reidel Publishing Co.

Wickramasuriya B.S.S.A. 1965 The Nominal Phrase in Sinhalese and its bearing on Sinhalese English, Unpublished M.A. Thesis, University of London.